

Broadsheet

The Magazine for Broadland Tree Wardens

Issue 211 – November 2022



**What Happened to Caring About
Our Precious Environment?**

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The Monthly Magazine for
Broadland Tree Wardens



Issue 211 – November 2022

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This Month's Cover Picture

Would you accept your children living like this? Trying to survive?

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What Happened to Caring About Our Precious Environment?

OCTOBER was, without doubt, a most eventful month as we saw the end of prime minister Truss and said hello to prime minister Sunak, added to which and we saw three Chancellors, all within a few weeks of saying goodbye to prime minister Johnson. It didn't help my low opinion of the quality (or lack of it) of this country's current politicians.

You don't need me to tell you that our precious, fragile environment rated very low (in fact it wasn't mentioned) on their lists of priorities as they scrambled to feather their own nests.

I fear that the little progress we have made in recent years will now be lost and, quite frankly, it scares me to death.

The news that King Charles will not attend the upcoming climate change conference COP27 in Egypt this month on the then prime minister Liz Truss's "advice" was both disappointing and, I must say, somewhat alarming.

Now, PM Rishi Sunak has been accused of "a failure of leadership", after No 10 said he would not attend the COP27 climate summit.

Writing on the BBC News website, Kate Whannel and Becky Morton reported that opposition parties and environmental groups said the decision suggested the government was not taking the climate crisis seriously enough. Mr Sunak's predecessor Liz Truss had been due to attend the conference.

Downing Street said the PM had "other pressing domestic commitments including preparations for the autumn Budget". A Downing Street spokeswoman said the UK would be represented by outgoing COP president Alok Sharma, and other ministers.

"We remain committed to net zero and to leading international and domestic action to tackle climate change. The UK is forging ahead of many other countries on net zero," she added.

"We will obviously continue to work closely with Egypt as the hosts of COP27 and to make sure that all countries are making progress on the historic commitments they made at the Glasgow climate pact."

COP27 will take place in Sharm el-Sheikh from 6 to 18 November, finishing the day after Chancellor Jeremy Hunt is due to set out the UK's tax and spending plans.

The annual UN climate summits are designed to help governments agree steps to limit global temperature rises. The UK hosted last year's summit, COP26, in Glasgow.

Labour said the decision for Mr Sunak not to attend was "a massive failure of climate leadership".

Shadow climate change secretary Ed Miliband told the BBC: "You've got world leaders from around the globe gathering together to talk about how we can tackle the biggest long-term threat we face [...] and our prime minister can't be bothered to turn up.

"I think that is a total failure of generations today and generations in the future."

Labour leader Sir Keir Starmer tweeted: "Britain showing up to work with world leaders is an opportunity to grasp. Not an event to shun."

The Liberal Democrats also criticised the decision, with leader Sir Ed Davey saying it

"flies in the face of the UK's proud tradition of leading the world in our response to the climate change".

Green Party MP Caroline Lucas said: "The new PM's decision not to attend COP27 makes a mockery of any government claims on continued climate leadership and what a shameful way to end the UK's COP presidency."

Rebecca Newsom, head of politics at Greenpeace UK, said the move suggests Mr Sunak does not take climate change "seriously enough".

The summit in Egypt is expected to focus on three main areas. Reducing emissions, helping countries prepare for and deal with climate change, and securing technical support for developing countries for these activities.

The news that Mr Sunak will not be attending comes as a UN report warns there is "no credible pathway" to keep the rise in global temperatures below a key threshold of 1.5°C. Scientists believe that going beyond 1.5°C would see dangerous impacts for people all over the world.

The UN's emissions gap study also said that governments' carbon-cutting plans since last year's climate summit had been "woefully inadequate".

United Nations secretary general António Guterres told the BBC that countries must reprioritise climate change or face catastrophe.

MATT McGrath, BBC's Environment Correspondent, reported that UN Secretary General Antonio Guterres told the BBC that he would like to see both the PM and King Charles in attendance. Now it looks like neither will be there.

Given that the UK government was not just the host of COP26 but the main driving force behind its limited successes, it is unusual that it will not have a major political figure in attendance.

While Alok Sharma will be there as the outgoing COP president, he is not of the same rank as a prime minister or monarch.

The Egyptian organisers will likely be furious at this turn of events and it will not augur well for the conference if the leaders of one of the world's leading lights in taking action on climate can't prioritise travelling to the gathering.

Meanwhile, No 10 have confirmed Climate Minister Graham Stuart, who was reappointed to the role in Mr Sunak's reshuffle, will no longer attend cabinet.

Under the Truss premiership, the government announced a review of the UK's target to achieve net zero carbon emissions by 2050.

Former Energy Minister Chris Skidmore was tasked with leading the review "with a focus on ensuring the UK's fight against climate change maximises economic growth, while increasing energy security and affordability for consumers and businesses".

Last year's Glasgow summit was attended by then-Prime Minister Boris Johnson, as well as Mr Sunak when he was chancellor.

More than 200 governments have been invited to COP27. However, some leaders of major economies are not expected to attend, including Russian President Vladimir Putin.

US President Joe Biden is planning to go, but China has not yet confirmed if its leaders will participate.

Earlier this month, Buckingham Palace confirmed King Charles would not be attending the conference. The monarch has a long-standing interest in environmental issues, but the Palace said it had sought advice from then-PM Ms Truss and that "with mutual friendship and respect there was agreement that the King would not attend".

However, US climate envoy John Kerry told the BBC's Newshour programme it would be "good for the world" and the UK if the King attended.

"He has 60 years of credibility and leadership in this venue," he said. "It's not a political issue or an ideological issue, it is an issue based on science."



IN ANOTHER article on the BBC website, Matt McGrath, Environment Correspondent reported that according to a bleak new UN assessment there is "no credible pathway" to keep the rise in global temperatures below the key threshold of 1.5°C.

Scientists believe that going beyond 1.5°C would see dangerous impacts for people all over the world.

The report says that since COP26 last year, governments carbon cutting plans have been "woefully inadequate". Only an urgent transformation of society will avoid disaster, the study says.

Mindful of the fact that the world's attention has been elsewhere since climate diplomats met in Glasgow last year, October has seen a flurry of reports underlining the fact that climate change hasn't gone away.

Answering questions from BBC viewers and listeners this week, the UN Secretary General António Guterres, said the world needed to re-focus on climate change or face catastrophe. This gloomy mood among scientists and diplomats is underlined in today's release of the UN emissions gap study.

Now in its thirteenth year, the report analyses the gap between the rhetoric and the reality. It concludes that the 1.5°C threshold is now in serious peril.

This analysis finds that new efforts to cut carbon would see global emissions fall by less than 1% by 2030, when according to scientists, reductions of 45% are needed to keep 1.5°C in play.

Looking at the impact on temperatures, the

study finds that with the current policies in place, the world will warm by around 2.8°C this century. If countries get financial support and put into practice the plans they have made, this can be limited to 2.4°C.

Inger Andersen, Executive Director of UNEP, who produced the study, said "We had our chance to make incremental changes, but that time is over. Only a root-and-branch transformation of our economies and societies can save us from accelerating climate disaster."

The UN acknowledges that achieving massive cuts in emissions is now a tall order, but it points to electricity, industry, transport and buildings as areas where rapid transformations away from fossil fuels can be made.

Ms Anderson said "We've got to take climate change with us wherever we go. Into the classrooms, into the boardrooms, into the voting booth, over the dinner table. We cannot let go of climate change."

As well as highlighting the slow pace of progress on tackling the causes of warming, other studies published this week show that governments are failing to prepare for the impacts of higher temperatures.

In the UK, a committee of MPs and peers says the government needs to "get a grip" on the risk to critical infrastructure posed by a warming climate. The report of the Joint Committee on the National Security Strategy cites examples where severe weather has overwhelmed transport and communications.

These include the deaths of three people from a train derailment in Scotland after heavy rainfall in August 2020, and the loss of electric power by almost 1m people during Storm Arwen in November 2021.

"The thing I find most disturbing is the lack of evidence that anyone in government is focusing on how all the impacts can come together, creating cascading crises," said the chair of the Joint Committee, Dame Margaret Beckett MP.

"There are simply no ministers with focused responsibility for making sure that our infrastructure is resilient to extreme weather and other effects of climate change."

While almost all the reports published last month underline the lack of progress on climate, there are some strong positives amidst the gloom.

The State of Climate Action study says that in transport, a transition to sustainable travel is well underway. Globally, almost half of the buses sold in 2021 were powered by battery electric or fuel cell electric engines. In passenger car sales, electric vehicles have doubled from the previous year to now account for almost 9% of new cars.

This note of hope is also reflected in the International Energy Agency's World Energy Outlook, also published last month. It argues that the energy crisis triggered by the war in Ukraine is causing changes that have the potential to hasten the transition to a more secure and sustainable energy system.

The report also finds that a raft of new policies in countries like the US, Japan, Korea and the EU will likely see clean energy investments of around \$2 trillion by 2030, a rise of more than 50% from today.

JOSHUA Nevett, writing on the BBC News politics website, revealed more damning news when he reported that Rishi Sunak's government has delayed legally binding targets aimed at curbing pollution and restoring nature.

The government said its 31 October deadline for setting targets to improve water, air

and wildlife would be missed. MPs and green groups said failing to hit the deadline ahead of the COP27 climate summit was embarrassing for the UK.

The delay comes as the prime minister faces criticism for skipping COP27.

Political opponents and environmental campaigners have accused Mr Sunak of a "failure of leadership" for deciding not to attend the conference in Egypt this month, but Mr Sunak has defended his decision, insisting that while tackling climate change was "important" to him, he was focused on domestic challenges.

The delay of environmental targets raises further questions about Mr Sunak's commitment to green goals as his government grapples with economic turmoil at home.

The government had planned for the targets to be ready before the COP27 summit, where the UK's delegation would have been able to present them to other nations.

Passed in November last year, the Environment Act requires that at least one target is set in each of four priority areas: air, water, biodiversity, and waste reduction, but in a statement to MPs, Environment Secretary Therese Coffey said the government would not be able to publish the targets by 31 October, "as required" by law.

Ms Coffey cited the "significant public response" to a government consultation on the targets as the reason for the delay. She said the government received over 180,000 responses to the consultation, which asked for public feedback on its target proposals and closed on 27 June.

Those responses "needed to be analysed and carefully considered", Ms Coffey said, but gave no new date for the publication of the targets.

She said the government would "continue to work at pace" to publish the targets and bring them before Parliament, where they will need to be approved to come into force.

Katie-jo Luxton, RSPB England's director of global conservation, said the delay left "a huge question mark over when we can expect to see the final targets".

She said the targets would reassure the public, "who are rightly concerned that almost half of England's wildlife is in decline and more than one in 10 species is threatened with extinction".

In a tweet, Green Party MP Caroline Lucas wrote: "Defra admits in a cursory statement slipped out this morning that it's failed to fulfil statutory duty to publish environment bill targets. This matters."

Labour's shadow environment secretary, Jim McMahon, described the failure to meet the deadline as "a huge embarrassment to them and deeply worrying for the UK's environment".

"This is yet another example of the Conservatives being all talk when it comes to the environment, but failing to provide the leadership and the action that is desperately needed," he said.

Using the hashtag "AttackOnNature", RSPB England shared a video on Twitter of Ms Lucas asking the prime minister about Liz Truss's government having taken a "wrecking ball to nature".

Lord Lucas, a hereditary member of the House of Lords, responded with a foul-mouthed swipe at the wildlife charity.

"You lying turds. There is no attack on nature, there never was an attack on nature, and that is what Rishi confirms," tweeted the Conservative peer. (*Charming man – Ed*)

The news that Mr Sunak will not be attending COP27 comes as a UN report warns

there is "no credible pathway" to keep the rise in global temperatures below a key threshold of 1.5°C. Scientists believe that going beyond 1.5°C would see dangerous impacts for people all over the world.

United Nations secretary general António Guterres told the BBC countries must re-prioritise climate change or face catastrophe. Meanwhile, 10 Downing Street have confirmed Climate Minister Graham Stuart, who was reappointed to the role in Mr Sunak's reshuffle, will no longer attend cabinet.

In September, under the Truss premiership, the government announced a review of the UK's target to achieve net zero carbon emissions by 2050.

Former Energy Minister Chris Skidmore was tasked with leading the review "with a focus on ensuring the UK's fight against climate change maximises economic growth, while increasing energy security and affordability for consumers and businesses".

THE claim by a BBC Panorama investigation that a Yorkshire power station is 'cutting down trees in ancient forests important for fighting climate change' is further cause for concern

Drax Power Station in Selby switched to burning wood pellets at its plant from coal, and in recent years has received £6bn in green subsidies from the taxpayer as a result, but campaigners dispute claims burning wood pellets for energy is a truly renewable energy source.

In an investigation that aired on 3 October, BBC Panorama tracked the wood pellets to the source in Canada. There, it found some of them come from ancient forests with important roles in carbon capture and storage.

Panorama reporter Joe Crowley headed out to British Columbia in Canada. British Columbia is home to many 'primary forests' which are areas of the most ancient, dense woodland that stores the most carbon.

Drax's sustainability policy said it should avoid cutting down primary forests. However, the BBC found that Drax had bid for licences to log in areas that contained primary forests.

The BBC headed to areas that seemingly meet the UN definition for primary forests and followed logs being transported from the site to Drax pellet mills to make wood pellets. The BBC said in the documentary that Drax had told them the species of trees being used wouldn't have been wanted by the timber industry so would have been burned anyway.

Trees are replanted to supposedly offset the impact of deforestation, but ecologists said it is unlikely replanted trees could ever store as much carbon as the older trees, even when replanted. Ecologist Michelle Connolly, who appeared in the Panorama programme, said the deforestation was "devastating" and "deeply upsetting". She also said that British taxpayers were "funding this destruction".

BBC Panorama spoke to Drax Director of Sustainability Alan Knight as part of the documentary. Drax has said it pellets are made from left over material from local sawmills and logs that are "twisted and bent" or "diseased and rotten". Wood that can't be used for timber.

However, the BBC investigated the quality of the logs they found at some of Drax's Canadian sites via perusing Canadian log databases. There they found that many of the logs were graded as good enough for wood working.

This comes as the UK government is set to publish new policies concerning biomass energy later on in the year.

A Drax spokesperson said: "Canada has some of the most highly regulated forests in the world which ensures the forests in British Columbia are managed properly and provide positive benefits to nature, the climate and people.

"People living in and around these forests are best placed to determine how they should be looked after, not the BBC. Drax's own world-leading sustainable sourcing policies are aligned with the rigorous regulatory frameworks and rules set by both the British Columbia and UK governments.

"The UN's IPCC – the world's leading science-based climate authority, backed by thousands of scientists – restated in their latest report the critical role that biomass will play in meeting global climate targets when sourced sustainably. Biomass is used by countries around the world to provide reliable renewable energy, whatever the weather, which displaces fossil fuels like coal from energy systems, supporting climate targets.

"In this edition of Panorama, the BBC has focused primarily on the views of a vocal minority who oppose biomass. The programme makers have sought to repeat the inaccurate claims about biomass which have for years been promoted by those who are ill-informed about the science behind sustainable forestry and climate change and those who have vested interests in seeing the biomass industry fail. Good journalism should start from a neutral position to seek out the facts.

"The Panorama team did not contact us while they were conducting their research in Canada to arrange to visit our facilities. From the outset we were presented with a series of one-sided assertions from the BBC. Our lawyers have written to the BBC to remind them of their legal and regulatory obligations and we are considering further action.

"At Drax, we are open and transparent about our operations and since becoming aware of the production team's visit to Canada, many people across our business have collectively spent hundreds of hours engaging with them in an effort to encourage an accurate portrayal of our business and the wider forestry industry.

"As anyone in the British Columbia forestry industry knows, the forests there are not harvested for biomass, they are harvested for high value timber used in construction. 80% of the material used to make our pellets at Drax in Canada is sawmill residues – sawdust, wood chips and bark left over when the timber is processed. The rest is waste material collected from the forests which would otherwise be burned to reduce the risk of wildfires and disease. This is the material used by Drax to produce 12% of the UK's renewable and secure electricity, playing a vital role in keeping the lights on for millions of homes and businesses."

I WAS delighted, not to mention very relieved, to read a short report by Becky Morton, BBC political reporter, that the moratorium on fracking in England has been restored by new Prime Minister Rishi Sunak.

Downing Street confirmed Mr Sunak was committed to the ban on fracking in England set out in his party's 2019 manifesto.

His predecessor Liz Truss lifted the ban, saying fracking could take place where there was local consent, but that provoked a backlash from many Conservative MPs because of concerns about earth tremors linked to fracking.

The controversial process was halted in 2019 following opposition from environmental groups and local communities. Labour and other opposition parties are also against the return of

fracking.

Mr Sunak was asked about the issue in his first Prime Minister's Questions. Green MP Caroline Lucas asked if the new PM would restore the moratorium on fracking pledged in the Conservatives' 2019 manifesto. In response, he said: "I have already said I stand by the manifesto on that."

The Tories' general election manifesto said the party would not support fracking unless the science showed "categorically" that it could be carried out safely. The PM's official spokesman later confirmed Mr Sunak was committed to this promise.

I WAS equally delighted to read in a new report that many wildlife species are thriving in Europe thanks to protection and re-introduction. Grey wolves, Eurasian beavers, grey seals, and European bison have seen some of the strongest recoveries in numbers and geographical range.

The report, commissioned by conservation group Rewilding Europe looked at 50 European species. It was compiled by Zoological Society of London, BirdLife International and the European Bird Census Council.

The European Wildlife Comeback Report 2022 builds upon earlier research conducted in 2013. It concentrates mostly on species that have seen recoveries over the past 40 to 50 years.

"This new report not only sheds light on which European wildlife species are recovering well, but why they are recovering well too," says Rewilding Europe Executive Director Frans Schepers. "By learning from the success stories we can maximise wildlife comeback across the board. The report also shows that we must work hard on many fronts, to keep the recovery continuing to happen, and to allow more species to benefit from this."

Grey wolves are one of the greatest success stories, according to the report. They were found in most areas of Europe at the end of the 18th century before their abundance decreased as human populations rose. They have now repopulated many regions in Europe, where numbers increased by nearly 1,800% between 1965 and 2016, according to the report. Some Scandinavian countries have even allowed culls of wolves in agricultural regions in order to protect livestock.

Bird species such as barnacle geese, griffon vultures, great white egrets and Dalmatian pelicans are also recovering well. Rewilding Europe credit these improvements to legal protections made through EU Birds and Habitats Directives and changes in policy and land use.

Not all of the species sampled were on the rise. The ringed seal has an uncertain future as its breeding habitat has drastically declined due to reduced ice cover, the report stated.

Lead author of the report, Sophie Ledger of ZSL's Institute of Zoology, said the findings gave grounds for hope. "This report gives cause for optimism and shows that given a chance, and with well-placed conservation efforts, wildlife can recover" she said.

EURONEWS reported the distressing news that the total area burned during this year's wildfire season reached new records in nine European Union member states.

By 1 October, more than 771,000 hectares had been scorched by forest fires in the 27-country bloc, itself the highest tally observed since records began in 2006, according to the European Forest Fire Information System.

Nine countries saw new records. They were Austria, the Czech Republic, France, Germany, Hungary, Romania, Slovakia, Slovenia, and Spain. For six of them, the records were shattered by large margins because the annual averages recorded between 2006 and 2021 were extremely low.

This is the case of the Czech Republic, where 1,436 hectares were burned this year compared to an average of just 9.06 in the 2006-2021 period - about 160 times higher. Austria's new record of 1,016 hectares burned is 58 times higher than the 2006-2021 averages, while Slovenia's tally of 388 hectares is 42 times larger. Spain's new record is by far the largest with 299,635 hectares burned this year compared to an average of 66,965. The country was the most impacted country across the EU.

The bloc's Emergency Response Co-ordination Centre was activated 11 times over this last wildfire season to provide aerial and/or ground assistance to countries including Albania, the Czech Republic, France, Portugal, Slovenia, and Spain. More than 200 European firefighters had meanwhile been pre-positioned in Greece, traditionally a heavily affected country.

In response to the record-breaking wildfires which were fuelled by a series of heatwaves that started as early as May, the European Commission announced last month that it will invest a further €170 million from the EU budget to reinforce rescEU capacities.

The aim is for the programme, part of the Civil protection mechanism, to have a total of 22 planes and four helicopters spread out across the bloc before summer 2023, up from the 12 firefighting planes and one helicopter at the disposal of struggling member states this year.

ALLOW me to report some good news before we all start jumping off Carrow Road bridge. Ash trees in the UK will survive despite dieback causing "significant losses", experts have said.

According to the Department for Environment, Food and Rural Affairs (Defra), ash dieback is in most parts of the UK.

Dr Anne Edwards, of the John Innes Centre in Norwich said: "My prognosis for the ash is that we're not going to lose them all."

Some of you may know that Anne is also a South Norfolk Tree Warden.

Last month marked the 10th anniversary of DNA sequencing being used to confirm the disease in trees in Norfolk Wildlife Trust's Lower Wood reserve, in Ashwellthorpe.

Defra said more than £6m had been invested to "advance our scientific understanding of the disease".

It had been feared the disease, first detected in the UK at a nursery in Buckinghamshire, would decimate the third most common tree type in the UK.

Formally known as *Hymenoscyphus fraxineus*, it causes leaf loss and crown dieback, and was first found in Poland in 1992, arriving in Britain via wind-borne spores and imported plants, according to Defra.

In the past ten years, more information has been found about the life cycle of the fungus, helping researchers to understand how it is spread.

Anne said "What I have noticed is that there's a huge variation in the resistance to the disease amongst the trees. Some trees die very, very, quickly. One whiff of the fungus and they were dead, but others are hanging on and some are fabulously healthy."

Trees that were "socially distanced", that is isolated in a park or garden, seemed able to



survive more than those in a group.

Anne said they now know that ash were genetically very diverse, a factor that has helped the species.

"If you look back at Covid, some people were very, very sensitive to Covid, and others were brushing it off like a cold, and not having any symptoms," she said.

"It's like that with the trees, but it's not one single [factor], it's a complicated genetic picture that hasn't been completely revealed, and maybe in time it will."

According to Steve Scott at the Forestry Commission, it is now believed some 25% to 50% of British ash could survive. He said in Lower Wood, plenty of ash were regenerating but there were also "a lot of dead and dying trees".

However, he believed the ash would "still be a significant component in the landscape, in the long-term".

Anne agreed that the present situation was hopeful, but said more needed to be done to around bio-security and to protect trees generally.

She said "My prognosis for the ash is that we're not going to lose them all. There will be losses, quite significant losses, especially in woodlands, but some will hang on and we will rely on those to re-populate," she said.

Defra said scientific observations in Europe and the UK meant it expected 1% to 5% of ash trees to show some genetic tolerance to the disease.

"Since it was first detected in the UK, the government has invested more than £6m to advance our scientific understanding of the disease and conducted the world's largest screening trials for tolerant trees," a spokesman said.

"We now have the UK's first collection of tolerant ash, with over 3,000 new trees planted - a major step towards landscape recovery."

Personally, I have never known so many ash seedlings appearing on our woodland floors. In Oakhill Wood at the rear of my house and in Low Farm Wood in Brundall that I am thinning with our excellent Tree Warden for Brundall, the ground is absolutely festooned with ash seedlings.

Just maybe Anne Edwards has given us some hope for the future ... a light at the end of a very dark tunnel ... at the end of one of the most depressing months I have known for a very long time.

CAN I please make a plea to those of you who won't be able to resist the temptation to let-off fireworks on the 5th of this month? Spare a thought for our pets and wildlife?

However you choose to celebrate Guy Fawkes Night, please be considerate of those around you, including domestic and wild animals. Here are five pieces of advice to help

you enjoy an environmentally and animal-friendly Halloween:

Many animals, from hedgehogs to field mice, can find the refuge of a tightly packed and snug bonfire too hard to resist. If you plan on building your own bonfire this November, make sure you check it for stowaways before starting the flames.

If you do not have a furry or feathered companion in your care, you may be unaware that loud noises can be highly distressing to them. So if you are going to set off fireworks, be sure to warn others of your plans so they can keep their companion animals indoors and comfort them while the fireworks go off.

Smaller wild animals, such as birds, have been known to die of fright in response to the sound of fireworks. In less severe cases, many birds will temporarily or even permanently abandon their nests in response to the unexpected booming overhead.



OK. Not the most uplifting editorial I have written for Broadsheet I know. In fact, I cannot remember ever writing something so depressing in the previous 210 editions. However, it's something we simply cannot ignore. We are destroying our planet.

I have always believed that, if you look for it, you can always find something of good that comes out of something bad. Accordingly, I thought that from the debacle of having three Prime Ministers in recent months I could find something good. Something of hope.

Instead, my country, that I love passionately, cannot send its King or Prime Minister to COP27. Probably the most important conference in the short history of *Homo sapiens* inhabiting (and destroying) planet earth.

Reading through what I have written, it appears that I am launching an attack on the conservative government, but let me assure you that Broadsheet will never be "political". No, it has nothing to do with politics.

It is simply that a bunch of apparently arrogant people appear to think that they know more than the world's leading scientists and we have no time left in which to recover from more mistakes.

Yes, our economy is in a perilous state, but what earthly use is a strong economy to a dead planet? Surely, our government's priority has to be the threat of climate change. There is no time left for them to keep burying their heads in the sand.

I shall keep on planting and protecting trees in the forlorn hope that I can personally make a change. I ask you all to join me.

Enjoy Broadsheet

John Fleetwood

Don't Let Government Ditch its Promise to Protect the Environment

A S MANY of you are aware, I have been a Woodland Trust supporter for many years and was part of the Trust's voluntary speaker scheme until they sadly closed it a few years ago. The Trust has a powerful voice when it comes to lobbying government on environmental matters. That is why I ask you all to simply click on the link provided below to voice your objection on this subject.

The UK Government's recent growth plan proposals could undo decades of hard earned environmental progress. The changes could leave nature more vulnerable to damage and destruction, including swathes of ancient woodland and veteran trees.

Urge your MP to stand up for woods and wildlife before it's too late. Just last year Government committed to improving protection for ancient woods, but this and many other vital safeguards could now be under threat.

The new announcements have prompted a huge outcry, but Government's early responses to criticism fall woefully short in reassuring us. We urgently need more detailed reassurances from Government that protection will not be weakened.

What's been announced?

Each proposal alone could have serious implications. Together, they represent a wholesale attack on the essential laws and policies that protect and restore our natural world. We can't let this happen.

Proposed investment zones could see planning rules weakened

The laws and policies that protect nature, woods and trees could be threatened. Lack of detail means thousands of ancient woods and trees are now at increased risk of damage from development. 38 areas have expressed early interest in creating an investment zone - and this number could grow.

Protections for critically important habitats could be scrapped

Under the new Retained EU Law Bill, Government will remove the last laws that originated in the EU from our legal system. It could rip up hundreds of laws without proper scrutiny or replacement laws, including the Habitats Regulations. These key environmental protections help safeguard some of our most special wooded habitats and the wildlife that depends on them, including endangered species like bats and newts.

Funding for nature-friendly farming is at risk

Long-promised funding for farmers and landowners to care for and restore nature is also rumoured to be at risk. The Environmental Land Management scheme - which would pay farmers for providing environmental benefits like wildlife, clean air and carbon capture - could be stripped back or scrapped altogether. Government has failed to offer adequate reassurances that this isn't the case.

What's at stake?

The environment is the foundation of our prosperity and quality of life, but the new prevailing view in government seems to be that it is a barrier to growth. The nature and climate crises are getting worse. Government should be strengthening protection and restoring the natural world as an urgent priority.

Communities could lose local wildlife hotspots and vital green spaces. Their chance to have a say could be reduced. And farmers' futures could look very uncertain if their vital scheme payments are diluted or abandoned.

Government is failing to address widespread concerns

Charities, scientists, businesses and tens of thousands of people have already made it clear that this attack on nature is unacceptable. And yet Government seems intent on ploughing ahead. It is denying its proposals are cause for concern but has so far entirely failed to provide detailed assurances.

We must keep pressing our representatives for cast iron commitments on the laws and policies designed to protect and restore our natural environment, including ancient woodland and veteran trees. They cannot be weakened or bypassed. We need to know that:

- policies that protect habitats and wildlife will still apply in all investment zones
- the planning system will still protect nature in investment zones
- laws that protect our natural environment will be maintained and strengthened
- Government will recommit to developing the Environmental Land Management scheme

Your voice matters

Ask your MP to secure guarantees that protection for woods, trees and wildlife will not be weakened as a result of Government's proposals. It only takes a couple of minutes with our simple form and template letter. Together we can make a difference.

125,000+

hectares of ancient woodland at greater risk of damage in areas identified for potential investment zones

40,000+

vulnerable ancient and veteran trees in areas that have already applied for investment zones

39

species could lose their protections if the laws under attack are scrapped as are planned

Demand protection for our natural world. Don't let years of progress and protection go to waste. Ask your MP for answers now.

[**Contact your MP**](#)



Amol Rajan Interviews Greta Thunberg

HAVE never made a secret of how much I admire Greta Thunberg, the Swedish climate crisis campaigner. As the wonderful David Attenborough enters the departure lounge of life (but I hope I do that well if I reach his age), we can all rest assured that there is a ready made successor waiting in the wings. A young lady that has made the world sit up and listen.

So, when I learned that Greta was to be interviewed on the BBC by Amol Rajan I just made sure that I didn't miss it. Despite her tender years this young lady does not take prisoners. She does not appreciate stupid or condescending questions. How would Rajan fare?

Jack Seale gave a very good report on the interview the following day on The Guardian website, writing that faced with questions both remarkable and daft, the climate crisis campaigner calmly sees each one off, but there's one that makes her giggle uncontrollably.

What must it be like to be Greta Thunberg? To be, at 19 years of age, the most recognised climate crisis campaigner in the world, shouldering the burden of averting, or at this late stage, merely softening, the biggest calamity humanity has ever faced? What can that possibly feel like?

At the end of "Amol Rajan Interviews Greta Thunberg" (BBC2), the conversation becomes more personal and we get a few answers: how Thunberg doesn't enjoy being stopped in the street and certainly doesn't appreciate threats to her family; how she despairs at being told her presence reassures people about the future of the planet, because it implies they are outsourcing their individual responsibility to her.

However, a fundamental insight into Greta's existence has already been provided by the previous half-hour of questions about her advocacy of "annual, drastic, immediate emissions cuts, on a scale unlike anything the world has ever seen".

Thunberg has sacrificed her youth to tackle the climate emergency, having realised that it demands a radical re-imagining of our whole way of life. Now she is doomed to the pure hell of arguing with people who cannot conceive of that way of life changing.

Rajan, who asserts in his introduction that Thunberg's influence must be acknowledged "whether you admire her or despair of her", spends large parts of the interview reflecting mainstream discourse on climate, which is to say he risks sounding ignorant in order to give commonplace gotchas and canards an airing. The sport is in how efficiently Thunberg can knock down questions we should, by now, have moved beyond asking.

Early on, she is pressed for an opinion on nuclear power and shale gas. Aren't they important components of a strategy to hit net zero by 2050, as per the Paris Agreement? Thunberg does say that the former is too slow and the latter is, er, a fossil fuel and thus not a cracking idea, but stresses that her concern is driving awareness of the extent of the problem, not getting bogged down in hot-button issues: arguments about which bucket of water to use will dissipate once people agree that the house is on fire.

Unskewing our priorities is also the rejoinder to Rajan's question, steeped in conservative attitudes towards which expenditures are



inevitable and which must be interrogated, about how we would "pay for" free public transport, a key Thunberg objective, during a "cost of living crisis".

Thunberg is presented with several versions of the same argument: we can't do that, because it would cost money or be inconvenient in the short term. At a time when both main UK political parties have recently used the slogan "growth, growth, growth", Thunberg's contention that the endless pursuit of economic expansion might just be, you know, suicidal feels like listening to an intelligent alien who is beamed down to sort us out. Rajan's question on the topic is remarkable:

"Economic growth creates leisure time, it creates opportunities for new experiences, some of which will have a negative impact on the environment, but a lot of which people really enjoy. Flying is one of those ... do you think flying should be illegal?"

More credibly, Rajan asks how Thunberg can call capitalism a failed ideology, when life expectancy and infant survival rates in China and India have risen as those countries have commercialised. Delicately, Thunberg observes that the collapse of life-support systems, wars for resources and other likely effects of out-of-control global warming might soon cause those graphs to slope back down.

It's not all such a struggle. Thunberg often has a refreshingly unguarded response to daft statements: her reaction to Rajan sincerely intoning that "There is one individual looming over this debate and that's Elon Musk" is untrammelled giggling and, in this extended format, Rajan has time to include more profound questions.

An inquiry about whether the gap between what we're doing and what we need to do is widening (yes) is valuable, as is a discussion about whether Thunberg ought not to encourage blanket cynicism towards politicians, and should consider going into politics herself.

She counters that although politicians will

ultimately implement the required action, public opinion will be what compels them to act, and protest is an effective way of amplifying that consensus. The politicians themselves then become irrelevant, and we can "reconsider what is politically possible". The payment of reparations to poorer countries deeply affected by a changing climate they have done little to cause, to take the example Rajan puts forward of a demand that is absurdly unrealistic, might well become feasible.

Her main point is that this needs to happen soon. We are desperately short of time, and Thunberg has given herself the task of communicating that urgency. As this programme shows, it is a terribly difficult job.

Oh, if only Greta was a UK citizen. She could be our Prime Minister. Well, there's not much opposition is there?

Imagine her standing at the despatch box in the House of Commons, ripping into the leader of the opposition. Not that there could be much opposition of course!

Greta Tintin Eleonora Ernman Thunberg is a Swedish environmental activist who is known for challenging world leaders to take immediate action for climate change mitigation.

Thunberg's activism began when she persuaded her parents to adopt lifestyle choices that reduced their own carbon footprint. Wikipedia

Born: 3 January 2003 (age 19 years), Stockholm, Sweden

Nationality: Swedish

Parents: Svante Thunberg, Malena Ernman

Education: Franska skolan

Direct Action Not Ruled Out By Conservation Groups Over Environment Policies

By Claire Marshall, Rural Affairs Correspondent, BBC News

THREE UK conservation groups say all options are on the table as they challenge what they describe as a government U-turn on protecting nature. The National Trust, RSPB and Wildlife Trusts said they could urge millions of members to take to the streets in demonstrations. The groups' leaders said new government policy was an "attack on nature".

The government said it was improving regulations and wildlife laws "in line with our ambitious vision". "A strong environment and strong economy go hand-in-hand," a government spokesperson said.

Hilary McGrady, who runs the National Trust; the chief executive of the Wildlife Trusts, Craig Bennett; and Beccy Speight from the RSPB made their comments in a joint interview with the BBC. They all heavily criticised the government over what they call its "U-turn" on Conservative manifesto promises on the environment.

Plans to scrap EU protections for nature, a relaxation of planning laws in new "investment zones", and the review of environmental farm subsidies were all cited.

It is the first time the leaders of the three groups have formed such a high-profile and outspoken coalition on an issue in this way. The combined membership of the three organisations is eight million. The National Trust alone has 5.9 million members around the UK

According to the RSPB, its members have sent 106,000 emails to MPs in two weeks.

The National Trust has described "the biggest attack on nature" in decades

Mrs McGrady of the National Trust said: "This is the biggest attack on nature certainly in my lifetime and let alone my career. This is unprecedented. That's why we are stepping forward with the RSPB and Wildlife Trusts. We choose our battles very carefully and we don't do it very often."

Mr Bennett said: "At the Wildlife Trusts we are hearing from tens of thousands of our supporters, also from huge numbers of farmers and businesses who are also concerned. This goes right across society."

While climate action groups like Extinction Rebellion and Just Stop Oil embrace tactics like gluing themselves to roads, members of the National Trust, RSPB and Wildlife Trusts are more often associated with hiking, bird-watching or visiting stately homes than taking direct action.

However, Mrs Speight of the RSPB and Mr Bennett said they would be prepared to organise a march in London if the government didn't provide the guarantees they were seeking.

"All options are on the table in terms of what comes next," said the RSPB head. "This is something we just can't allow to go forward. Any campaign has lots of tools in the toolbox. We have to prepare to use as many of those tools as will be effective."

Mrs McGrady stopped short of



Standing together: the heads of the Wildlife Trusts, National Trust and RSPB

saying she would call out her members, but did not rule it out. She said: "We will do what the most effective thing is to do."

She also added a warning: "At some point we will run out of patience."

Mrs McGrady said that neither she nor Mr Bennett had been invited to meet the new Environment Secretary Ranil Jayawardena, which she said was "not normal".

Other major organisations also voicing their anger include the Angling Trust, the Rivers Trust, the Woodland Trust, Wildlife and Countryside Link, along with numerous regional charities.

A bill passed in September means all post-Brexit laws - some 2,400 - must be reviewed or abandoned by the end of 2023. Around 570 cover aspects of the environment, from sewage pollution and pesticide use to protection for wildflower meadows and wetlands.

Department for Environment, Food and Rural Affairs (Defra) officials have privately expressed concern about whether such a mountain of

legislation can be examined in such a short timeframe.

Wildlife groups also fear that protected landscapes and fragile ecosystems could be at risk from government plans to set up new investment zones with lower taxes and "liberalised" planning laws.

As many as 38 local authorities are thought to be in talks with the government over setting up the zones, with the goal of releasing more land for commercial and housing developments.

The National Trust has said the plans could create "grey zones" which are "devoid of nature or historic character in which people have no say in the development that impacts them".

The "rapid review" of the new post-Brexit Environment Land Management Scheme (ELMS) is also provoking confusion and anger among farmers.

ELMS is designed to replace the criticised EU system, where farmers were paid based simply on how much land they had. Instead ELMS would pay farmers for providing environmental benefits to the public, such as restoring woodland, preventing pollution from entering rivers, and working towards net zero targets.

Rural groups and farmers had contributed to its design, and many contracts for some of the larger schemes have already been drawn up. However this has been put on hold until the results of the government review, due to be published at the end of October.

The Scottish government has described the government actions as "anti nature". Northern Ireland wildlife groups have also issued a warning over the planned changes.



Young Activists Urge Focus on Cash for Climate Damage at COP27

By Maddie Molloy, BBC Climate and Science Reporter

THE main focus of this year's COP27 climate summit should be working out who pays the bill for damage caused by global warming, young activists say. World leaders will gather in Egypt this month to discuss how the world deals with rising temperatures. Poorer countries want rich ones to pay for damage caused by climate change and the extreme weather associated with it.

Youth activists meeting ahead of COP27 say it must deal with this long-running issue of "loss and damage". The issue was a source of acrimony between rich and poor countries at recent climate talks in Germany.

Last month, almost 400 activists from 65 countries attended the 'Climate Justice Camp' in Tunisia. Coming from some of the parts of the world that are most affected by climate change, they met with the goal of securing "a fair response to the climate crisis at COP27 and beyond".

Experts called the recent floods in Pakistan which left almost 1,700 people dead a "wake-up call" on the threats of climate change.

"We are talking about hundreds of thousands of people currently living in shanty towns, sleeping in tents under the sky. There are dead bodies still floating in the water," said Ayisha Siddiq, the 23-year-old co-founder of

Polluters Out and Fossil Free University, who is from a tribal community in the northern Pakistan.

"Women are pregnant and they're expected to give birth into the flooded water. How has (climate change) directly impacted me? It is my reality wherever I look."

Poorer countries want a new fund to be created that would pay for the damage from extreme events that they are unable to adapt to - such as fast rising seas.

They want richer countries like the US and the EU to contribute to this fund because they are the biggest historic contributors to climate change. Wealthier nations object, saying they could be on the hook for billions of dollars for centuries to come if they accept the principal of responsibility.

Ms Siddiq said she hoped that COP27 would be "step one" toward creating such a fund.

"It's not the rich nations' onus or charity, it's their responsibility," she said. "In fact, it's an insurance policy because what is happening now in Pakistan will indeed become the reality

of the global North."

Omar Elmawi, a 34-year-old Kenyan who coordinates the Stop East African Crude Pipeline campaign, also wants richer countries to shoulder what he sees as their responsibilities at COP27.

"I know I'll be disappointed," he said. "I hope that there will be some commitments around loss and damage so that the people who've contributed to this problem at last will take some action to rectify the problems that we are in today."

Maria Reyes, a 20-year-old representative from Mexico of the Indigenous Futures Network, said that moving forward on the issue of loss and damage depended on people from affected countries and cultures having a real voice at such meetings.

"All that we need is political will," she said. "All that we need is someone who is in the right seat, in the right place, who was born in the right country... to want to sign a paper, to want to open their wallet and put the money on the table for things to actually happen."

Asian Hornets Identified in Essex

BEEKEEPERS and members of the public were asked on Wednesday 28 September to remain vigilant after Asian hornets were spotted in the Rayleigh area of Essex. The National Bee Unit has confirmed the sighting and monitoring is underway to detect further Asian hornets in the vicinity.

The Asian hornet is smaller than our native hornet and poses no greater risk to human health than our native wasps and hornets. However, they do pose a risk to honey bees and work is already underway to monitor for any hornet activity and to identify any nests nearby.

This is the first confirmed UK sighting since April 2022, when a single Asian hornet was captured in Felixstowe, Suffolk.

Defra's Chief Plant and Bee Health Officer Nicola Spence said "By ensuring we are alerted to possible sightings as early as possible, we can take swift and effective action to stamp out the threat posed by Asian hornets. That's why



we are working at speed to locate and investigate any nests in the area following this confirmed sighting.

"While the Asian hornet poses no greater risk to human health than other wasps or hornets, we recognise the damage they can cause to honey bee colonies and other

beneficial insects.

"Please continue to look out for any Asian hornets and if you think you've spotted one, report your sighting through the Asian hornet app or online."

It is important to take care not to approach or disturb a nest. Asian hornets are not generally aggressive towards people but an exception to this is when they perceive a threat to their nest.

If you suspect you have seen an Asian hornet you should report this using the iPhone and Android app 'Asian Hornet Watch' or by using our [online report form](#). Alternatively, e-mail alrtnonnative@ceh.ac.uk.

Please include a photograph if you can safely obtain one.

[Identification guides and more information](#) are available and if you keep bees you should keep up to date with the latest situation on the [gov.uk sightings page](#) and on [BeeBase](#).

Great Yarmouth Borough Council Rejects Planting of 'Hazardous' Fruit Trees

An article published on the BBC News website

GREAT YARMOUTH BOROUGH COUNCIL rejected planting fruit trees in a public place amid fears windfalls could be "used as missiles". Work on the Queen's Green Canopy along Great Yarmouth's South Quay will not feature apple, plum or pear trees, the borough council decided.

A total of 92 "standard" trees will now be planted along the quay between November and March 2023. A council officer said they wanted to create "more of an avenue feel" by the waterside.

The issue was raised at Great Yarmouth Borough Council's environment committee, which discussed the constraints involved in planting trees in the area. They had received advice that fallen fruit could be "used as missiles".

Research had been undertaken into soil types "due to ongoing issues with tree survival rates in this area", it was told.

Labour councillor Marlene Fairhead questioned the suitability of fruit trees along

South Quay, saying "they cause a bit of a hazard".

She told the BBC "The fruit drops off, nobody claims it, it gets slippery and also children pick it up and chuck it at each other. It's a health and safety issue really. You get elderly people walking along the pavements. They assured us they will not plant them along the kerbsides."

The two-year project involves planting more than 500 trees by March 2023 in urban areas of Great Yarmouth, as part of the Forgotten Places: Greening Coastal Towns and Cities initiative.

The total budget of £261,840, the council said, included £40,000 of Town Deal government money to replace trees along South Quay that had to be dug up in 2013 after they failed to thrive.

A selection of trees, including honey locust,

English oak and hornbeam, will now be planted along South Quay.

"I have an allotment and I'm into fruit trees and I don't let the fruit go to waste," Ms Fairhead added.

"I think it's a waste when they're planted along the kerbside and cause a hazard."

A Great Yarmouth Borough Council spokesman insisted it wanted to choose the "right trees for each location" and there was no ban on fruit trees.

"We have taken advice from professional arboriculturists that includes considering the ground conditions, maintenance, and any potential impact on the local environment or residents," he said.

He said the "potential for anti-social behaviour" was considered but was "not the main factor".

Over Half of World's Palm Trees in Danger

By Helen Briggs, BBC Environment Correspondent

MORE than a thousand species of palm tree are at risk of extinction, according to a study. Scientists used artificial intelligence to assess risks to the entire palm family, from tall trees to climbing plants. The data gives a much better idea of how many, and which, palm species are under threat.

Palms are a huge plant family that provide millions of people with food, drink and shelter.

"We need to do all we can to protect biodiversity and that encompasses more than a thousand palm species that we now know may be threatened," said study leader, Dr Sidonie Bellot of the Royal Botanic Gardens, Kew, London.

She said action was needed to conserve plants on the ground and to collect more data on them, which cannot be done without the people who live in the regions where palms grow and who use the palms daily.

Palm trees have a host of uses, including as staple crops such as coconut, palm oil or dates, or in the making of furniture, rubber, oil and ropes.

Scientists are concerned about extinction risks to lesser-known wild relatives of popular

ornamental or commercially grown palms. They say wild plants are invaluable to local people, but could vanish even before their full potential is known.

Official assessments of extinction risk are time-consuming and costly, prompting the Kew-led team to investigate machine learning as a tool. Their data suggests more than a thousand species - just over 50% of palms - are threatened with extinction.

"With these predictions we can help to prioritise conservation activity and to target species with further conservation work in the countries where they are most at risk," said Dr Steven Bachman, research leader in Kew's conservation assessment and analysis team.

The team has designated Madagascar, New Guinea, the Philippines, Hawaii, Borneo, Jamaica, Vietnam, Vanuatu, New Caledonia and Sulawesi as priority regions for palm conservation.

Palms are the most iconic plant group in the tropics and one of the most useful too, added Dr Rodrigo Cámara-Leret of the University of Zurich, who worked on the study.

The study gives a much better idea of how many, and which, palm species are under threat, he said.

Palms are among the most economically important of all plant families, with hundreds of wild species supporting millions of people across the world. They provide building materials for homes and tools, as well as food and medicine for hundreds of communities across the tropics.

According to the research, published in Nature Ecology and Evolution, at least 185 palm species that have a use may be threatened in 92 regions, further emphasising the need to protect these plants.

Trees are Growing Larger Than Ever Before to Help Ease Global Warming

By Sarah Knapton - published on The Telegraph website

TREES are getting bigger because of more carbon dioxide in the atmosphere, and are likely to be helping to mitigate global warming more than climate models suggest, scientists believe. A new study from The Ohio State University has found that tree trunk volume in the US is up to 29% bigger than it was 30 years ago, a finding that is likely to be mirrored elsewhere in the world.

Trees are known to act as a buffer zone against climate change by pulling in carbon dioxide from the atmosphere, but the latest research shows just how much they have been bulking up on the extra fuel.

"It's well known that when you put a ton of carbon dioxide in the atmosphere, it doesn't stay up there forever," said Brent Sohngen, professor of environmental and resource economics at Ohio State.

"A massive amount of it falls into the oceans, while the rest of it is taken up by trees and wetlands and those kinds of areas. Forests are taking carbon out of the atmosphere at a rate of about 13% of our gross emissions.

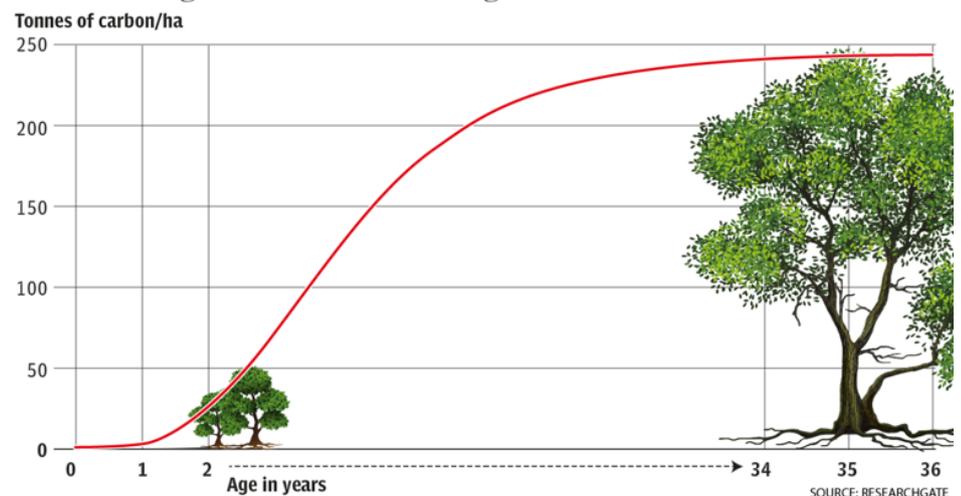
"While we're putting billions of tonnes of carbon dioxide into the atmosphere, we're actually taking much of it out just by letting our forests grow."

The team used historical data from the US Forest Service Forest Inventory and Analysis Program to compare how the wood volume of certain forest groups has changed over the past few decades.

The study estimates that between 1970 and 2015, there was a significant increase in the wood volume of trees, which correlates with a distinct rise in carbon emissions.

Elevated carbon levels are likely to have led to the equivalent of an extra tree ring growth for each tree in the 10 different temperate forest groups across the US, suggesting that trees are helping to shield Earth's ecosystem from the impacts of global warming through their rapid

Carbon storage of trees at different ages



growth, researchers said.

The phenomenon is known as "carbon fertilisation", whereby an influx of carbon dioxide increases a plant's rate of photosynthesis, spurring growth.

The amount of carbon dioxide in the atmosphere mixes almost evenly, so every place on Earth has nearly the same amount, researchers said, suggesting other forests and wooded areas would have seen a similar increase in biomass.

The team found that trunk volume had increased by 12.3% in 75-year-old forests and 28.8% in 25-year-old forests.

Some studies from Europe have recorded greater tree heights over time, which research-

ers have speculated may be due to carbon fertilisation. Experts had previously speculated that the amount of carbon dioxide that trees would be able to take up would be capped by a lack of other elements needed for photosynthesis such as nitrogen and phosphorus. However the researchers said that did not appear to be the case. Instead, a lack of carbon dioxide appears to be the most important limiting factor in tree growth.

The team are hoping to repeat the research using global data, but said they hope it would show policymakers and others the value of trees in mitigating climate change.

The research was published in the journal Nature Communications.



Record Tree Losses in 2021 in Northern Regions

By Matt McGrath, BBC Environment correspondent

TREE cover losses in northern regions of the world were the highest on record in 2021, according to new analysis from Global Forest Watch. Figures for these boreal forests were up 30% on 2020, with wildfires causing massive losses in Russia. Elsewhere, around ten football pitches per minute of tropical primary forest were lost across the year. Brazil, once again, led the way with a significant uptick in tree loss associated with agricultural expansion.

This new data records the losses of tree cover in 2021, and is not the overall net picture when new plantings are taken into account. Much of the focus for researchers is on the world's tropical regions as this is where more than 96% of deforestation takes place.

When it comes to tropical primary forests, Brazil and the Democratic Republic of Congo top the table as they have for many years now, but one of the big concerns in the new figures is the loss of boreal forests which are found in northern parts of Russia, Canada and Alaska.

While the cutting or burning of trees in these regions rarely results in permanent deforestation, the number of trees destroyed in 2021 was up 30% on 2020, to the highest level yet recorded.

Climate change is seen as a key driver of tree loss in these areas, with hotter drier conditions leading to more wildfires and greater damage from insects.

Russia saw its worst fire season since records began in 2001, losing more than 6.5 million hectares.

Rod Taylor from the World Resources Institute, part of the team behind the new analysis, said "It's hugely worrying. "Global warming is generally happening faster as you get closer to the poles, so it's like having a changing climate and an ecosystem that's not coping, so we're seeing fires that burn more frequently more intensively and more broadly than they ever would under normal conditions."

Outside of northern regions, tree losses continued at very high levels in tropical areas - in terms of carbon, the destruction of these trees



was equal to the annual fossil fuel emissions of India.

Over 40% of this primary forest loss occurred in Brazil, with the non-fire related destruction increasing by 9% overall. Researchers say that is normally associated with the expansion of agriculture. In some key states in the western Amazon region, these losses were as high as 25%.

This is a key concern for climate researchers who fear that the Brazilian rainforest may be approaching a tipping point when it emits more carbon than it stores, which would be a very negative development in limiting the rise in global temperatures this century.

There are also growing worries about trees losses in Bolivia where over two thirds of the clearance of trees was linked to large scale agriculture such as cattle ranching.

However, there is some good news in the data, with Indonesia curbing tree losses for the fifth year in a row. There are several factors behind this success.

The government has put in place a permanent moratorium on converting primary forest and peat land for palm oil. They've also included a commitment in their national climate plan to reduce emissions from forests so they

become a carbon sink and not a source by 2030.

They've also been helped by industry actions, with deforestation for palm oil at a 20 year low, while commitments to stop clearing new lands have also been tightened for the pulp and paper industry. However, there are some concerns that things in Indonesia could change for the worse in coming years.

"The palm oil price is currently at a 40-year high and this might increase the appetite to expand palm oil plantation areas and a temporary freeze on new oil palm plantations was not renewed last year," said Hidayah Hamza, from WRI Indonesia.

While the data from Indonesia and Malaysia is positive, the overall picture is not going in the right direction.

At COP26 in Glasgow last Autumn, some 141 countries committed to "halt and reverse forest loss by 2030." This will require significant and rapid action in many countries that isn't evident at present.

One of the biggest concerns is that despite the best efforts of many governments to preserve the forests, a rapidly changing climate could upend their good work.

Frances Seymour, from WRI said "Wildfires are often linked to the hotter, drier conditions that climate change is bringing, which compound the similar local effects of deforestation itself. This loss of forest resilience is edging us closer and closer to tipping points, such as the wholesale conversion of the Amazon rainforest to a savanna grassland that would release enough carbon into the atmosphere to blow the Paris Agreement goals right out of the water."

The data has been compiled by Global Forest Watch, World Resources Institute and the University of Maryland.



Giant Sequoia Tree Population Faces Large Decline Due Wildfires

By Kaitlyn Milam, News Reporter for <https://therunneronline.com>

GROWING up in central California, you probably have fond memories of visiting a giant sequoia grove in a national park. Maybe you've craned your neck up at these beauties while hiking the trail of 100 giants. Or perhaps you marvel at the magnitude of the world's largest tree, in terms of trunk volume, the General Sherman in Sequoia National Park. Before it became illegal to cut down giant sequoias, logging reduced these groves greatly. Now, these trees face a growing threat each year: wildfires.

In the last two years, about 20% of the giant sequoia tree population has been killed due to three major wildfires: The Castle Fire in Tulare County, the KNP Complex Fire, and the Windy Fire in the Sequoia National Forest.

Two plant biology professors and their students here at CSUB study the effects of drought and wildfire on native species in California. One of the native species that they study is the giant sequoia trees, which are the oldest and largest trees in the world and estimated to live for over 3,000 years.

Plant Biology Professor Dr Brandon Pratt said that giant sequoias are well adapted to coping with fire because they can co-exist with certain fire regimes known as smouldering ground fires.

"Sequoias have this amazingly thick bark that is filled with air, which is a great insulator. The air inside the bark protects the living tissues inside it from the fires," said Pratt.

However, the scope and strength of recent wildfires are growing so much that even the giant sequoia trees are not surviving them.

Fellow Plant Biology Professor Dr Anne Jacobsen said, "We have these organisms that are thousands of years old, that have lived and survived through fires and droughts for thousands of years, and they are dying now. So, that tells us that these fires and droughts that we are having are not normal."

The Castle Fire, which raged from 19 August 2020 to December 2020, burned about 171,000 acres of the Sequoia National Forest. According to the National Park Service website, "The Castle Fire killed an estimated 7,500 to 10,600 giant sequoias. This is 31% to 42% of large sequoias within the Castle Fire or 10% to 14% of all large sequoias across the tree's natural range in the Sierra Nevada."

Giant sequoias only grow naturally between 4,000 and 8,000 feet in elevation on the Western slopes of the Sierra Nevada in California, according to the National Park Service website. The KNP Complex Fire and Windy Fire both started from the same lightning storm on Sept. 9, 2021, and have burned an estimated 186,000 acres combined, or about 5% of the giant sequoia tree population in the world.

"Giant sequoia trees specialize and become exquisitely adaptive to a particular environment. The current environment is shifting and these majestic giant creatures are now in a vulnerable state because of climate change," said Pratt.



The most recent fire, the Washburn Fire, started on 7 July 2022 and burned for 27 days across 4,886 acres of the Mariposa Grove in Yosemite National Park. This grove is home to over 500 giant sequoias and the Grizzly Giant, which is the second largest tree in Yosemite standing at 209 feet tall.

Wynne Davis, a reporter and producer for NPR, said that a sprinkler system was installed to help increase humidity surrounding the Grizzly Giant and reduce the chance of a ground fire, in the article "Wildfire near Yosemite National Park threatens its largest grove of sequoia trees."

The Washburn Fire was officially 100% contained on 4 August 2022 and there was little to no impact to Giant Sequoias in the grove, according to "The Washburn Incident," by the California Department of Forestry and Fire Protection.

Jacobsen said, "For the groves that have been lost, it's kind of amazing to think that even if we get seeds germinated and new seedlings coming back, it's not just that we won't see big trees again in our lives. It's generations of lives out before we will get those big trees back again."

Garvin Horton, a second-year engineering sciences major at CSUB, said that throughout their whole life, they have gone camping and hunting in the Sequoia National Forest.

"I think it's really sad that our forests have been burning so much recently because of all of the environmental hardships we have been dealing with. Just recently, I visited the lower sequoias and saw mountain sides full of scorched landscape and trees," said Horton.

According to the July 2021 article, "Wildfires Kill Unprecedented Numbers of Large Sequoia Trees" on the National Park Service website, Clay Jordan a park superintendent of Sequoia and Kings Canyon National Parks said, "The unprecedented number of giant sequoias lost to fire last year serves as a call to action."

Jordan also said, "To combat these emerging threats to our forests, we must come together across agencies."

Pratt said that young people, like students at CSUB, can get involved by joining groups such as Save the Redwoods League and The Sierra Club. These organizations take policy stands and influence policymakers on issues that are good for sequoia trees.

"You can get on the ground, hands-on volunteer. The bigger issue is the policy and you can contribute and make connections with like-minded people and these organizations," said Pratt.

The Sierra Club Kern Kaweah Chapter has a local group in Bakersfield called, The Buena Vista Group. You can join online for a small fee at <https://www.sierraclub.org/kern-kaweah>.

What is Bird Flu and Why is There an Outbreak in Norfolk?

By Owen Sennitt, published on the Eastern Daily Press website

CASES of bird flu, or avian flu, have spiked this past month with Norfolk facing several outbreaks across the county. Council leaders have described the situation as "unprecedented" and thousands of birds have been culled at farms. Recent months have seen over 160 confirmed cases across the country in the UK's worst-ever bird flu outbreak, and the fourteenth in Norfolk and Suffolk since the start of September.

So, what is bird flu and what is causing it to become such a problem in the region? Avian flu, or bird flu, is a virus that causes disease in birds, including poultry, pigeons and wild birds, according to the RSPB.

It has been found at scores of poultry farms and commercial premises across the UK in the past year, while the disease has also ripped through breeding colonies of seabirds, killing thousands in some sites.

A spokeswoman for the charity said: "Like other viruses there are lots of different strains, most of which cause no or few signs of disease in infected wild birds. By contrast HPAI (which is causing the current outbreak) can cause severe disease and high mortality"

The virus is spread via infected bird faeces, nasal secretions, and saliva.

The RSPB said "Wild birds are often more resistant than domestic ones to bird flu and can carry the disease without showing symptoms" said the RSPB. This has led to speculation that they are main cause of spreading, but there are several ways. Globally the most significant has been the unrestricted movement of poultry and poultry products."

Tens of thousands of turkeys, chickens and ducks have been culled after recent outbreaks in Norfolk. Norfolk County Council has described the situation as "unprecedented" and in the past weeks six sites in Norfolk have been affected.

If you were worried about a shortage of Christmas turkeys, farming leaders have said there should still be enough to go around. *(Personally, Lesley and I will be enjoying a nut roast – Ed)*

Last month, the intensifying outbreak in the east of England sparked a raft of new restrictions in a bid to halt the spread of the disease.

The regional Avian Influenza Prevention Zone (AIPZ) makes it a legal requirement for all bird keepers across Norfolk, Suffolk and parts of Essex to follow strict biosecurity rules including disinfecting clothing, footwear, equipment and vehicles before and after contact with captive birds.

While wild birds are often more resistant, the current outbreak is having a "devastating impact" upon wild populations. An RSPBA spokeswoman said: "This summer, dead and dying seabirds have been reported right round the coast of the UK.

"This is extremely worrying as the UK hosts



international important breeding seabird populations, particularly in Norfolk. Most affected are great skuas and northern gannets.

"Scotland, for example, holds 60pc of the world's breeding population of great skuas and at some colonies over 70% of birds have died this year. Other seabirds affected by the virus around the UK include common guillemot, Atlantic puffin, razorbill, black-legged kittiwake and northern fulmar, gulls and terns.

"Species other than seabirds have also been affected. For example HPAI has now been confirmed in 6 species of raptor in Scotland: white-tailed eagle, red kite, golden eagle, buzzard, kestrel and sparrowhawk.

Bird flu has been found in small numbers of foxes, harbour seal, grey seal and otter. It has recently been found in cetaceans (summer 2022) – bottlenose dolphin and harbour porpoise."

Avian flu can cause a large number of different symptoms, ranging from sneezing, gurgling, lethargy and depression.

A sudden and rapid increase in the number of dead birds in an area can be a clear sign of bird flu, according to the RSPB.

Human infections are rare and the risk to the general public's health is very low. However, some strains of the viruses, such as H5N1 or H7N9, have been associated with human disease. Almost all reported human transmissions globally have come from extremely close contact with infected birds.

The RSPB is encouraging people not to have close contact with sick or injured birds. Close contact includes touching infected birds,

contact with droppings or bedding and killing or preparing infected birds for cooking.

The RSPB also recommends dog walkers avoid areas where there is known to be bird flu. A spokeswoman said: "Do not allow your dog to go into areas where there are sick or dead birds and keep them on a short leash."

People should report suspected cases of bird flu to the Department for Environment, Food and Rural Affairs (Defra).

As Lesley and I drove up to visit our daughter and her family in Mossley just outside Manchester on 1 October, the dramatic moors scenery suddenly became somewhat alarming as police vans lined the road and two blue gazebos were apparent some way down the slope.

We were, of course, traversing the infamous Saddleworth Moor and the police were responding to a claim that a human skull had been discovered. They were therefore searching for the remains of Keith Bennett, murdered by the notorious Ian Brady and Myra Hindley in 1964.

It was sad that so many people were lining the road, watching the grim scene. However, it was one of those horrible events that those who lived through will never forget and local folk remain hopeful that the Bennett family can finally get closure, even after 48 years.

Alas, that spectacular moor once again did not reveal its secret.

Chicken in British Supermarkets 'Linked to Deforested Amazon'

*An article by Andrew Downie and Andrew Wasley
published on The Guardian website*

A NEW investigation into industrial poultry farming in Brazil claims that chicken fed with corn and soya beans grown on deforested land or with unclear origins is ending up on British dinner plates and supermarket shelves. The joint investigation by Reporter Brasil and Ecostorm, published on last month, once again highlights how global food chains are linked to mounting deforestation in a country that is home to some of the world's most important biomes and food producers.

The investigation claims that suppliers of soya beans and corn used to feed chicken produced by the American food processing company JBS were linked to deforested areas in the Amazon and the Cerrado, the vast swathe of grasslands, swamps and savannahs located to the east and south.

"This investigation shows that the purchasing procedures applied have blind spots and still cannot fully prevent mechanisms of grain laundering," it said.

JBS told Reporter Brasil that it requires its grain suppliers to meet high standards and be signatories to the soy moratorium. The moratorium bans the sale of soya grown on land deforested after 2008.

JBS is the world's biggest meat firm and exports Brazilian beef, pork and chicken to companies across the globe, including in Europe, China and the Middle East. Sear, a subsidiary it bought in 2013, produces more than 5 million chickens a day from its 9,000 poultry farms across Brazil.

Seara chicken, which is sold whole, and as cuts and processed parts, has been supplied to some of the world's biggest supermarkets and popular fast-food chains.

The UK imported at least \$500m of Seara products over the last three years, research has shown, with customers including wholesalers, food service and food processing companies, some of which in turn supply schools, hospitals, care homes and supermarkets.

Brazil is the world's biggest producer of soya beans and the third biggest producer of corn, and the study targeted two farms that produced the former and three that produced the latter.

Most animal feed used in Brazil's intensive breeding systems is made up of 60% corn, 20% soya beans and 20% other micronutrients, such as vitamins and minerals.

In one case, according to the report, in the agriculturally rich state of Mato Grosso, 98.7 hectares (243,890 acres) of land was illegally deforested on a farm where soya beans were cultivated and sold to JBS suppliers for making animal feed.

The investigation also claimed to have found a number of instances where JBS had



bought corn from farms where illegal deforestation had occurred.

JBS told the Guardian: "JBS requires that 100% of its grain procurement contracts meet social-environmental criteria in all Brazilian biomes. In the case of purchases from trading companies, the contracts require that their supplier farms are not located in areas of illegal deforestation; are not under federal or state interdictions; are not located in conservation units or on indigenous or quilombola lands; or do not use labour under conditions analogous to slavery. Additionally, for those that operate specifically in the Amazon biome, JBS also requires that they are signatories to the soy moratorium."

They added that in the cases of purchases from producers, "the farms that supplied grains to the company were in compliance with JBS's social-environmental criteria at the time of purchase. The three farms mentioned received an environmental interdiction at a later stage and currently, post-embargo, they are blocked from the JBS purchasing system. Two other farms mentioned have no record of a commercial relationship with JBS."

It is the first time that chicken produced in Brazil and exported to Britain has been linked to deforestation. But it is not the first time British companies have found themselves embroiled in the complex web of supply chain issues, land ownership conflicts, and confusing labelling practices that can lead to question marks over the clean sourcing of their products.

In 2020, a Guardian investigation revealed

UK supermarkets and fast food restaurants were buying chickens fed by soya beans from Cargill, a US agricultural conglomerate with operations across Brazil. The investigation said that by buying chicken from the high street firms, shoppers "may be inadvertently contributing to the destruction" of tropical biomes.

A similar investigation in January reported that Cargill was selling feed made from corn and soya beans cultivated on deforested land in the Amazon to British chicken farms. Cargill says it is committed to eliminating deforestation from its supply chain.

Furthermore, in August, a report from environmental group Earthsight said big grain traders were sourcing soya beans from a Brazilian farm linked to abuses of Indigenous rights and land.

The companies all said they had firm guidelines in place to ensure responsible and ethical sourcing of grains and that they held suppliers to rigid standards of certification.

There is growing concern for the Amazon and the Cerrado. Already, 24% of the Amazon has been destroyed and annual deforestation there hit a 15-year high this year under the far-right president Jair Bolsonaro.

Bolsonaro is up for re-election and there are grave fears that if he wins his developmental policies and disregard for nature would spell a death knell for the rainforest.

The populist former army captain trails Luiz Inácio Lula da Silva 48.4% to 43.2% after the first round of voting and the two men face a runoff ballot on 30 October.

Where Did All the Acorns Come from This Year?

Based on an article published on the Tree Council's website

S EED GATHERING SEASON each autumn can be great fun, but the number of acorns produced by an oak varies hugely year on year with some years of extreme bounty, called 'mast years', but others such as last year almost having an absence of acorns. The word 'mast' relates to the old English word 'mæst' when acorns accumulated on the ground and were eaten by domestic animals like pigs. 2022 has been an exceptionally bountiful acorn year.

Jon Stokes, Director of Science and Research at The Tree Council, said "Our oak trees are an iconic feature of our countryside, but they are in fact two species: sessile oak (*Quercus petraea*) and pedunculate oak (*Quercus robur*).

Despite being the most widely planted broadleaf tree in the UK, the supply of British acorns to tree nurseries is still limited. To be able to plan ahead and successfully collect more acorns at the right time, we need to better understand the biology of masting."

Ryan McClory, a PhD candidate at the University of Reading, is focusing on the possible triggers for oak 'masting' in the UK. Insight that is particularly useful for the conservation and tree growing industries. Ryan, whose PhD is part-funded by our friends at Action Oak, said: "2021 was a poor year for acorns seemingly across the whole of the UK, but in 2022, there has been a vast recovery in acorn numbers"

Similar to other tree species, oak trees flower each year and yet only masts at irregular intervals, occasionally separated by several years. The acorns cannot be stored for long periods of time, increasing the importance of understanding, and harnessing the masting cycle for successful native oak regeneration.

Ryan said "My acorn counts in Wytham Woods near Oxford were 4,787 in 2020, just one in 20201 and 2828 in 2022"

A mast year sees a tree species drastically increase the number of seeds it produces, such as acorns, but no-one is quite sure of the cause or the reason. The longest known study of acorn production we have in the UK is at Silwood Park in Berkshire, collected over 44 years by Professor Mick Crawley. His data shows that the average acorn crop fluctuates from year to year, often with low acorn years alternating with higher acorn years. He has also observed multiple poor years in a row, but what is rarer is two good years in a row. The factors that lead to this variability, are however still unclear.

Ryan believes mast years are influenced by three key factors: the weather; pollination efficiency and a tree's ability to regenerate spent internal resources, and for oak 'a dry and warm spring seems important, to allow for efficient flowering'. He suspects that 'the warm, dry



spring air caused all the oaks to flower at once aiding pollination – plus there was less rain to wash pollen out of the air.'

It can take over 40 years for oaks to produce acorns and they can suffer from poor natural regeneration in the UK as acorns are such an important food source for wildlife. The majority of new oak woodland in Britain is therefore established via planting which is why we need to encourage more acorn collection to set up local community tree nurseries.

Over at Moor Trees, a charity dedicated to restoring native woodland in Dartmoor and south Devon, Director Adam Owen has also observed the abundant return of acorns following 2021's low count.

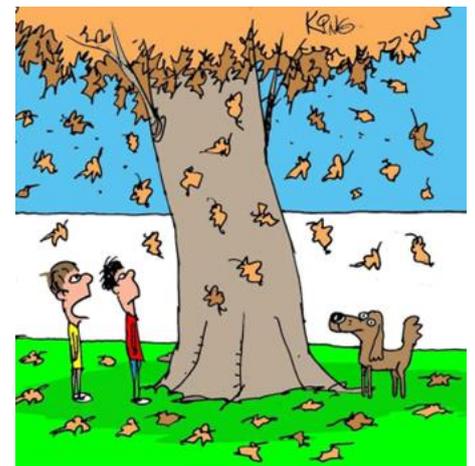
Adam said: "Last year, there were virtually no acorns around Dartmoor for Moor Trees to collect, so we are very pleased to see a good crop once again this year. We were concerned by the potential impacts of the drought, but it appears the oak trees, alongside other species, have produced ample seed.

Adam believes the summer drought "undoubtedly had an impact" on tree seed production, with many trees producing seed in numbers, but very early. He cited rowan as an example, where seeds would normally be collected in late September "but most rowan seed has now passed over and withered, if not eaten by birds".

Jon Stokes said "Climate change will likely result in more and more extreme weather events and whilst most oaks seem to have fared well

and produced many healthy-looking acorns this autumn, the trees will also have suffered drought stress, with some acorns dropping early or dying on the branch. We have also noticed a surprising number of jet-black acorns on many oak trees, the biology of which is still unclear."

You can play your part in growing the mighty oaks of the future, by collecting some acorns from your local trees this year and giving each seed the chance to become a tree benefitting many generations to come.



"It must be removing temporary files so it can increase its speed and performance."

The Broadland Tree Warden Network Annual General Meeting 2022

Wednesday 16 November 2022 at 19:30

[Join Here](#)

New Town Bigger Than Cromer Proposed for Norfolk Countryside

By Noah Vickers, Eastern Daily Press Local Democracy Reporter

THE county's first new town for centuries could be built in the heart of the Norfolk countryside. The new settlement of 5,000 homes would fill a vast tract of land between the villages of North Elmham, Billingford and Bintree, north of Dereham. The town is designed to have a larger population than established communities like Watton (population 8,417), Fakenham (8,285) and Cromer (7,949).

The project is one of several major developments in the pipeline across Norfolk, to accommodate the region's growing population and to encourage economic growth.

However, most of the other schemes involve the expansion of existing towns such as Dereham (where 1,400 new homes are proposed), Attleborough (4,000 homes) and Thetford (5,000 homes).

A new town has also been mooted for south Norfolk, but the project is less developed than the mid-Norfolk scheme.

The settlement has been provisionally named the 'Railway Village', as it would lie close to the Mid Norfolk Railway, a heritage route which passes through North Elmham and connects with the National Rail network at

Wymondham.

As part of the plans, the rail route could be upgraded to serve the new community. A new school and other facilities are also proposed for the site. No planning application for the development has yet been lodged, but it has been named on a list of locations for potential development by Breckland Council.

The council is in the process of drawing up its new 'local plan' - a document outlining how the district should grow over the coming 20 years. As part of that process, it is calling for landowners to offer up sites that might be suitable for development - and the 'railway village' proposal is one of them.

A similar proposal, for 10,000 homes on the same stretch of land, was made back in 2018, but was dismissed by the council after local opposition to the project. Those concerns included the loss of agricultural land and pressure on local infrastructure.

The Campaign to Protect Rural England (CPRE) said the new 5,000-home proposal was also "unacceptable".

Michael Rayner, planning campaigns consultant at CPRE Norfolk, said: "The local road network is inadequate to cope with the increased traffic, which would bring unacceptable disruption to local communities.

"The proposed site borders the highly protected River Wensum, while it partly encircles the precious habitats of Bintree Woods.

"Growth is already planned for in Fakenham and Dereham and is in current Local Plans. "Those sites should be developed before additional allocations are added either there, or particularly on greenfield sites with no supporting infrastructure, such is the case with this speculative application which would only benefit the landowner, promoter and developer.

"Norfolk's countryside deserves much better than this."

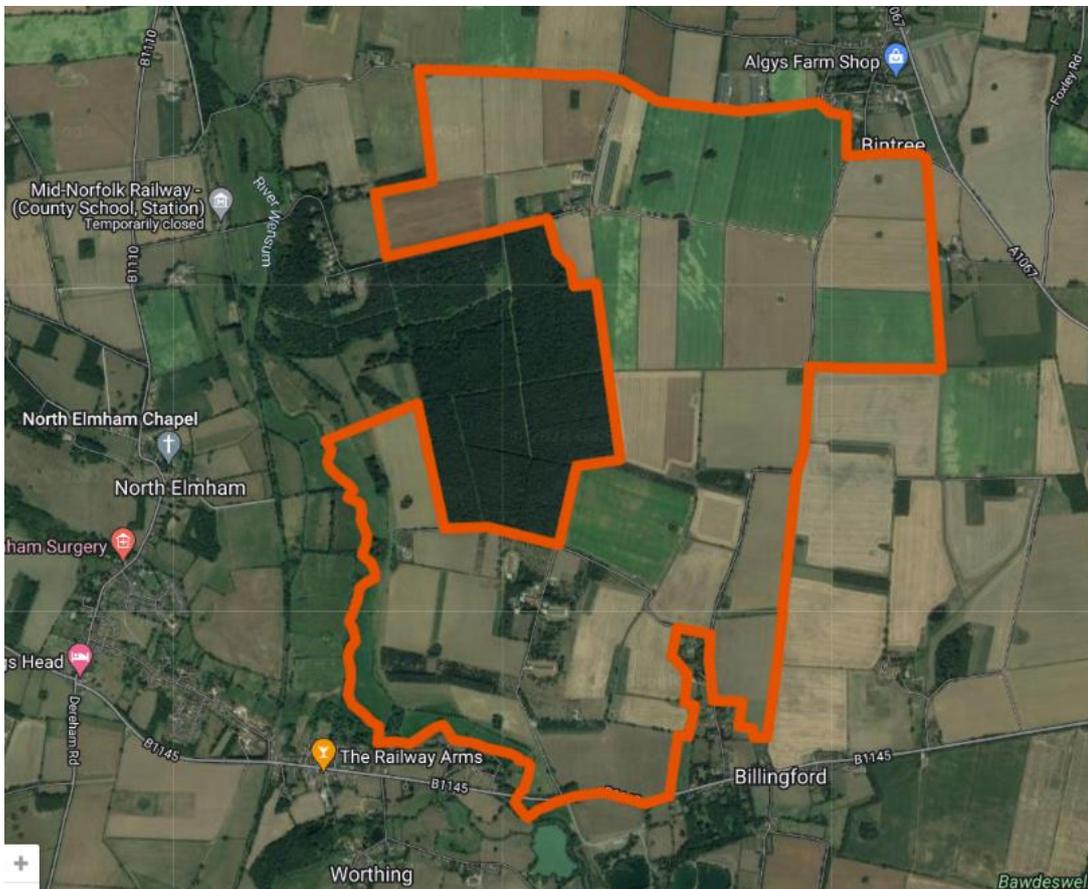
The document submitted to the council states that there is a "known developer interest" in the site, and that once planning permission is granted, construction could start within five years.

It estimates that some 500 homes could be built each year, meaning that it would take about a decade for the entire town to be built. Some 25% of the homes are proposed to be afford-able, with the remaining 75% set at market rates.

The use of 'railway village' as the name of the proposed development, suggests that the rail line could be used as part of the justification of the new homes.

A spokesman for the Mid Norfolk Railway said: "At this stage this is very much a speculative document and there has not been any discussions with the railway.

"The railway, however, is clear that any idea that the railway itself would be able to fund the reestablishment of the line and then run at regular daily commercial service to meet the needs of such a development is completely beyond the finances of the Mid Norfolk Railway Preservation Trust, which is a charity."



Give Legal Rights to Animals, Trees and Rivers, Say Experts

By Haroon Siddique Legal Affairs Correspondent for The Guardian

GRANTING legal rights and protections to non-human entities such as animals, trees and rivers is essential if countries are to tackle climate breakdown and biodiversity loss, experts have said. The authors of a report titled *Law in the Emerging Bio Age* say legal frameworks have a key part to play in governing human interactions with the environment and biotechnology.

Ecuador and Bolivia have already enshrined rights for the natural world, while there is a campaign to make ecocide a prosecutable offence at the international criminal court. The report for the Law Society, the professional body for solicitors in England and Wales, explores how the relationship between humans and mother earth might be recalibrated in the future.

Dr Wendy Schultz, a futurist and report co-author, said: "There is a growing understanding that something very different has to be done if our children are going to have a planet to live on that is in any way pleasant, much less survivable, so this is an expanding trend. Is it happening as fast as any of us would want? Possibly not, which is why it's important to get the word out."

Her co-author, Dr Trish O'Flynn, an interdisciplinary researcher who was previously the national lead for civil contingencies at the Local Government Association, said legal frameworks should be "fit for a more than human future" and developments such as genetic modification or

engineering. This means covering everything from labradors to lab-grown brain tissue, rivers to robots.

"We sometimes see ourselves as outside nature, that nature is something that we can manipulate," said O'Flynn. "But actually we are of nature, we are in nature, we are just another species. We happen to be at the top of the evolutionary tree in some ways, if you look at it in that linear kind of way, but actually the global ecosystem is much more powerful than we are. And I think that's beginning to come through in the way that we think about it."

"An example of a right might be evolutionary development, where a species and individual ... is allowed to reach its full cognitive, emotional, social potential."

Such a right could apply to sows in intensive pig farming, calves taken away from their mothers and even pets, said O'Flynn, adding: "I say that as a dog lover. We do constrain their behaviour to suit us."

Developments in biotechnology also pose questions about the ethics of bringing back species from extinction or eradicating existing ones. Scientists are exploring reintroducing woolly mammoths and there has been discussion of wiping out mosquitoes, which carry malaria and other diseases.

"We aren't wise enough to manage all of

these capabilities and to manage the ripple effects of decisions we make about our relationship with the living environment," said Schultz. "Part of the issue is embedding some sort of framework for accountability and responsibility for the consequences of these things we do, and that's where law comes in."

The authors acknowledge potential resistance from very different traditions and beliefs in some western countries, compared with Ecuador and Bolivia, where rights to nature were granted under socialist governments and influenced by Indigenous beliefs (as was the 2019 ban on climbing Uluru in Australia).

"Granting something that is culturally numinous rights just so you can preserve it gets us to a kind of valuation that, among other things, is a cultural shift away from the Judeo-Christian great chain of being – dominion over nature," said Schultz. "This is reconfiguring it to place us where we have always been and where we should be thinking of ourselves as belonging, as just a node in this greater web of life on the planet."

"If that world view can be enshrined in law, essentially granting personhood rights to the spirit of the river, the spirit of the trees or the spirit of the elephant, you're talking about enshrining a kind of neo-panteism into 21st-century legal frameworks."

Only 3% of England Under Nature Protection

By Claire Marshall, Rural Affairs Correspondent, BBC News

ONLY 3% of the land in England and 8% of the sea is effectively protected for nature, according to a new report. The government has committed to protecting at least 30% of land and sea by 2030, as part of a global initiative to slow the destruction of the natural world and catastrophic loss of species.

However, the study by Wildlife and Countryside Link says that in England "little progress" had been made. The government said it was committed to meeting the 2030 target.

More than 100 countries around the world have made the pledge - known as 30x30. It is one of the cornerstones of the Post-2020 Global

Biodiversity Framework set to be agreed at a major international biodiversity conference - COP15 - in Montreal in December.

Former prime minister Boris Johnson made the commitment with regard to England and said he would also work with the devolved governments to increase the amount they protected.

However, the report by Wildlife and Countryside Link (WCL), the largest environment and wildlife coalition in England, said protection of the land and sea in England had

barely increased compared with 2021.

It said the government had designated about 2,800 hectares (6,918 acres) to nature in three new Sites of Special Scientific Interest (SSSI), adding 0.22% to the amount of protected land. It said it also strengthened some management of Marine Protected Areas, but that this had increased the amount of ocean protected by 4% "at most".

WCL chief executive Richard Benwell said: "Our figures show that in the race to halt nature's

decline by 2030, the government is limping backwards. At this rate, the government's prospects of effectively protecting 30% of the land and sea for nature by 2030 are vanishing."

The report says that plans for a "fundamental review" of some key EU-derived nature protection laws announced by the government of Prime Minister Liz Truss could damage rather than restore biodiversity.

Mark Lloyd, chief executive officer of The Rivers Trust, described the current rate of protection for land and marine areas as "dismal".

He said: "The government's 30x30 nature target should be a keystone for protecting rivers, the life-giving arteries of our landscape. Sadly though, this report shows that targets mean nothing if they're not underpinned by robust policy and regulation."

Beccy Speight, chief executive of the RSPB, said there had been "next to no progress" and that recent events suggested the UK

government might "actually be dismantling the fundamental building blocks needed to achieve this target".

A government spokesperson said: "We are committed to halting the decline of nature by 2030 and will not undermine our obligations to the environment in pursuit of growth.

"A strong environment and a strong economy go hand-in-hand. We have legislated through the Environment Act and will continue to improve our regulations, marine protections and wildlife laws in line with our ambitious vision."

Wildlife and Countryside Link (Link) is the largest environment and wildlife coalition in England. It is based in England and focuses its efforts on influencing Westminster, the HM Government and other relevant stakeholders. They work closely with their sister Links in each of the devolved administrations.

All four Links regularly exchange information and meet to discuss priorities and best

practice. The Links also campaign together on issues of common interest under the name Environment Links UK. Taken together, Environment Links UK members have the support of over eight million people in the UK and manage over 750,000 hectares of land.

A key part of the calendar, is the biennial Environment Links UK conference. The last conference was held in London on 3 October 2018 with the theme of the Sustainable Development Goals.

That proved to be a key opportunity for the members of the four Link organisations in the UK to share information across a range of environmental issues, plan campaigns and discuss the different approaches within each country.

They also used workshops to explore ways in which they can work effectively on issues affecting all of the UK, including addressing the risks and opportunities for the environment as the UK transitions towards leaving the EU.

Scientists Reach Tallest Tree Ever Found in Amazon

An article published on www.france24.com

AFTER three years of planning, five expeditions and a two-week trek through dense jungle, scientists have reached the tallest tree ever found in the Amazon rainforest, a towering specimen the size of a 25-storey building. Researchers first spotted the enormous tree in satellite images in 2019 as part of a 3D mapping project.

The giant tree, whose top juts out high above the canopy in the Iratapuru River Nature Reserve in northern Brazil, is an angelim vermelho (*Dinizia excelsa*) and measures 88.5m tall and 9.9m around. The biggest ever identified in the Amazon, scientists say.

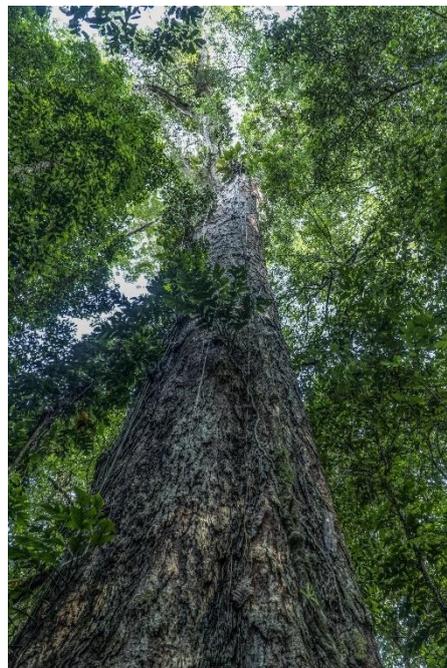
A team of academics, environmentalists and local guides mounted an expedition to try to reach it later that year, but after a 10-day trek through difficult terrain, exhausted, low on supplies and with a team member falling ill, they had to turn back.

Three more expeditions to the reserve's remote Jari Valley region, which sits at the border between the states of Amapa and Para, reached several other gigantic trees, including the tallest Brazil nut tree ever recorded in the Amazon. 66m.

However, the enormous angelim vermelho remained elusive until the expedition in September, when researchers travelled 155 miles by boat up rivers with treacherous rapids, plus another 12.5 miles on foot across mountainous jungle terrain to reach it.

One person on the 19-member expedition was bitten by what the team doctor believes was a poisonous spider, but it was worth it, says forest engineer Diego Armando Silva of Amapa Federal University, who helped organize the trip.

"It was one of the most beautiful things I've



ever seen. Just divine," Silva, 33, told AFP.

"You're in the middle of this forest where humankind has never set foot before, with absolutely exuberant nature."

After camping under the massive tree, the group collected leaves, soil and other samples,



which will now be analysed to study questions including how old the tree is (at least 400 to 600 years Silva estimates) why the region has so many giant trees and how much carbon they store.

The region's giant trees weigh up to 400,000 tonnes, around half of which is carbon absorbed from the atmosphere. Fundamental in helping curb climate change, says Silva.

However, despite its remoteness, the region's giants are under threat.

Angelim vermelho wood is prized by loggers, and the Iratapuru reserve is being invaded by illegal gold miners infamous for bringing ecological destruction, says Jakeline Pereira of environmental group Imazon, which helped organize the expedition.

Pereira says "We were so thrilled to make this find. It's super important at a time when the Amazon is facing such frightening levels of deforestation."

Over the past three years, average annual deforestation in the Brazilian Amazon has increased 75% from the previous decade.

People are Right to Trespass in Fight for Right to Roam in England, Says Green MP

An article by Helena Horton published on The Guardian website

PEOPLE across England are right to trespass to stand up for their right to roam, Caroline Lucas has said. The Green MP will table a bill later in October to allow the public to access woodlands and the green belt in the same way they can currently walk on the coast path. Currently, the Countryside and Rights of Way (CROW) Act 2000 gives a legal right of public access to about 8% of England, including mountains, moorland, heaths, some downland and commons, alongside the more recently created England coast path.

Campaigners have asked for this to be extended to cover rivers, woods and green belt land. 97% of rivers are currently off-limits to the public, and tens of thousands of acres of woodland have benefited from public subsidy, yet remain publicly inaccessible.

Though her campaign sounds radical, Lucas says it is not in reality such a big ask. Talking to the Guardian shortly before launching the bill, Lucas said: "I think if the measures in the bill were to go through, instead of having access to only 8% of English land, we'd be coming up to somewhere near around 30%. So it's a very modest ask."

She points out that the bill has important ramifications for inequality. The majority of people who cannot access nature nearby are people in low-income areas who don't have a car, which is necessary to get to most nature reserves. Those areas also tend to have fewer trees and smaller gardens.

Opening up areas around cities would allow more people to easily visit nature, which has well-established physical and mental health benefits, and for decades now advisers have been pleading with the government to prioritise access to green space in order to improve lives.

However, Conservative ministers say that while this may sound like an attractive idea, they are concerned about the public causing disruption to rural businesses and littering. Lucas says the argument around the so-called irresponsible public is a "distraction".

"I think it's a very easy way of trying to close down the conversation. It's not your wild swimmers who are polluting the rivers and it's not your people who are exercising the right to roam that are leaving massive decaying bits of equipment, you know, hidden away in woodlands and so forth."

Lucas recently met Richard Benyon, the Tory peer in charge of access to nature (and also a significant landowner himself).

"We had a long conversation about how we do more to allay understandable concerns about litter, dogs, all of the arguments that always come up when you talk about increasing access to nature. And it does seem ironic to me that the government has actually done quite a bit of work in terms of the countryside code and yet hasn't really bothered to publicise it."

In Scotland, where there is a right to roam, she pointed out that there had been a lot of education about responsible access to the countryside, and the system seemed to work pretty well.



"There is an issue Richard Benyon did acknowledge himself, that issue of having nature near to you so you're not having to get in a car or go somewhere that feels a long way away. And one of the areas that we were talking about was that sense of making sure that people don't live more than a short distance from good quality open green space as well."

The government earlier this year quashed a review into the right to roam in England's countryside, amid anger from campaigners that the law of trespass stops people from walking freely around the country.

Over the last few months, mass trespasses have taken place across the country on private estates by campaigners asking for a right to roam. They have strict rules about leaving the



areas in a better state than they found them, for example by picking up litter, and sticking to forest tracks and paths so as not to disturb wildlife. The MP agrees with the trespasses – and said she would like to go on them herself.

"I do agree with them," she said. "I think they have been incredibly responsibly done. I was really sorry not to be able to make the one locally last week. The idea that you don't leave a trace but we actually have a positive impact, so if you do see litter pick it up, and take nothing home except memories and photographs."

"I think that it's filling a part of this vacuum that I was referring to in terms of the lack of information and education coming from anywhere else. So I think that it makes a really important political point. I think it gives people the confidence to feel that yes, we have a right to be able to access nature."

The direction that the new government appears to be taking on environmental issues causes Lucas huge concern.

"We need somebody in Defra who's really going to stand up and champion nature. We know there is no financial capital that isn't based on natural capital. It used to be the Treasury that recognised that. The Dasgupta review it commissioned absolutely made that point," she said.

"For all of this dash for growth, if that growth is basically going to devour natural capital, and I don't even like that language, devour the environment upon which all wealth is built, then it's not going to be very sustainable for very long."

Global Deforestation Pledge Will be Missed Without Urgent Action, Say Researchers

By *Damian Carrington* Environment Editor for the *Guardian*

THE destruction of global forests slowed in 2021 but the vital climate goal of ending deforestation by 2030 will still be missed without urgent action, according to an assessment. The area razed in 2021 fell by 6.3% after progress in some countries, notably Indonesia, but almost 7m hectares were lost and the destruction of the most carbon- and biodiversity-rich tropical rainforests fell by only 3%. The CO₂ emissions resulting from the lost trees were equivalent to the emissions of the entire European Union plus Japan.

Global heating could not be limited to 1.5°C above pre-industrial levels without ending deforestation, experts said. At the UN's Cop26 climate summit in Glasgow last year, 145 countries pledged to end the felling of forests by the end of the decade. The demolition and degradation of forests causes about 10% of global carbon emissions.

However, based on current trends, the Glasgow leaders' declaration would be as "hollow" as the pledge made by countries in 2014 to end deforestation by 2020, the assessment's authors said. There was little clarity or transparency of the measures being taken to end deforestation and only 1% of the required funding was being provided, they said, and most importantly a lack of political will.

Erin Matson at Climate Focus, a policy group and one of the coalition of organisations that conducted the assessment, said: "The [Glasgow declaration] was a big moment, the first time such a target had been embraced at the leaders' level by so many countries, covering 90% of global forests.

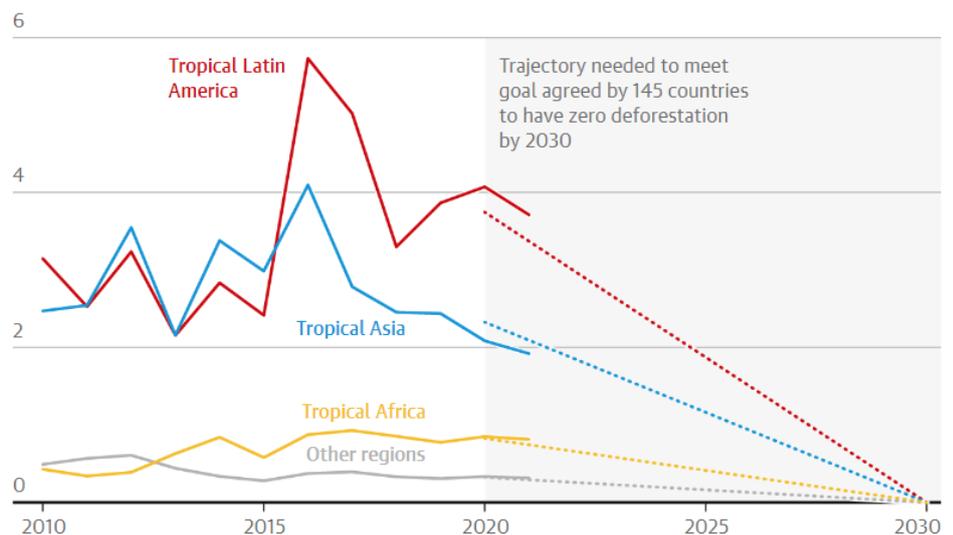
"But we are not on track. There has been some modest improvement, but even this could just be temporary. Many countries are putting their progress at risk by phasing out or rolling back protections. For example, Indonesia did not renew its palm oil moratorium after it expired in September 2021 and a recently adopted law on job creation poses a serious threat to natural forests."

The largest area of destroyed forest in 2021 was in Brazil, where deforestation has risen under president Jair Bolsonaro, having fallen under his predecessor, Luiz Inácio Lula da Silva. The election contest between the two men, on 30 October, has been described by scientists as likely to determine the fate of the Amazon. "The stakes are high," Matson said.

David Gibbs, a research associate at the World Resources Institute's (WRI) Global Forest

The destruction of forests is falling but not fast enough to reach the agreed zero target by 2030

Deforestation in million hectares a year



Guardian graphic. Source: Forest declaration assessment/WRI. Note: trajectory to reach zero deforestation by 2030 - a 10% a year decrease starting in 2020, based on a 2018-20 average

Watch, said: "We are quickly moving toward another round of hollow commitments and vanished forests."

Fran Price, at the World Wildlife Fund, said: "There is no pathway to meeting the 1.5°C target or reversing biodiversity loss without halting deforestation and conversion. It is time for bold leadership and daring solutions."

Four of the top five countries with the largest areas of deforestation - Brazil, Bolivia, the Democratic Republic of the Congo and Paraguay - increased the destruction in 2021.

However, "exceptional progress" in some countries showed the 2030 goal was still possible, the authors said. Indonesia, the only country to cut deforestation in each of the past five years, and its neighbour Malaysia, reduced

forest destruction by about 25% in 2021. As a result, tropical Asia is the only region on track for zero deforestation by 2030.

A drive to end the razing of forests for cocoa plantations in Ivory Coast and Ghana helped deforestation fall by 47% and 13% respectively, while new national parks and measures to fight illegal logging led to a 28% fall in Gabon. Tropical Latin America, Mexico, Venezuela, Colombia and Guatemala also reported cuts in deforestation in 2021.

"We have the data and we know what interventions work - the missing element is the political will to actually undertake those actions," said Frances Seymour at WRI.

If you have any comments to make about an article you have read in *Broadsheet* (good or bad!) or would like to see an article relating to a particular topic, then please let me know. It is, after all, your newsletter.

In addition, I shall be pleased to receive your articles on matters relating to Tree Wardening or associated subjects.

Outrage as 'Beautiful Trees' Voted for Chop by Green Party Councillors in Leafy Solihull Suburb

By Thomas Cramp, Local Democracy Reporter for Birmingham Live

A RESIDENT believes the Green Party in Solihull has 'a lot to answer for' as councillors voted to bring down five ancient trees in a leafy Solihull suburb. Paul Orton, 76, and his wife Vivian, 75, are outraged and believe the trees, one of which partially sits on their land, should be given more time.

At a Solihull planning committee last month, Green Party councillors voted to bring down five ancient trees at 40 Blossomfield Road. An oak, a horse chestnut and three beech trees are said to be suffering from dieback, with falling branches deemed a risk to public safety.

However, the Ortons have said they believe that argument to be 'an absolute fabrication'. Furthermore, they have threatened civil action should the oak tree on the edge of their land be brought down.

"It's an utter disgrace," Mr Orton said. "The trees should be monitored and looked at in a few years' time. The process feels rushed. The Green Party has a lot to answer for."

Mrs Orton agreed: "I just love the trees. The shape of the oak is still maintained. The colours of the beech trees are just incredible, especially at this time of year."

The trees, some of which could be between 300 and 400 years old, are within the boundary of a block of flats built in 2019 next door to the Ortons' home. Linda Hughes-Jones, a resident of these flats who won permission to cut the trees down last week, blames the developer for damaging the roots of the trees when building the driveway.

Mrs Orton continued: "You don't move into a neighbourhood like this if you don't like trees. Those flats have been there for three years at the most. We've been here for 43 years. Our daughter Susie was two years old when we moved in. We have never seen any branches falling off these trees."

When the Local Democracy Reporting Service (LDRS) visited the site, all but one of the trees had lush green canopies that were gradually turning red with the arrival of autumn. The horse chestnut was the only one to have bare branches and looked in poor health.

TPOs were given to six trees when the flats were built. Both the Ortons and Linda Hughes-Jones have sought expert opinions with contrasting results.

Jim Unwin, a forestry expert with over 40 years experience, recommended the trees are monitored for the next few years. Meanwhile, Cedarwood Tree Care proposed all six trees be felled as the roots were severely damaged.

Mr Orton continued: "The council's forestry officer didn't want to read Jim Unwin's report. It was suppressed.

"I thought Green council members were opposed to the destruction of trees and wildlife? As far as we're concerned, that oak tree is not dangerous."

The Ortons are not the only residents living nearby to be outraged at the decision. 69-year-old Olga Paladini has lived opposite the trees on Blossomfield Road for 27 years and claims she



had never encountered any branches falling.

She said: "It's a bit bizarre. More elaboration is needed from the Green Party. I'd much rather the trees didn't come down, they are very beautiful."

74-year-old Tony Abrahams, a resident of Blossomfield Road for 35 years, said the decision to cut the trees down is 'outrageous'.

"The trees were subject to a protection order," he told the LDRS, "and the work to the flats had damaged the roots. Blossomfield Road is a nice leafy suburb and most of the trees showed no signs of damage - it's ridiculous."

In response to the comments made by the Ortons, chair of Solihull Council's planning committee Cllr Bob Grinsell (Cons, Olton) said: "The proposal to fell the trees at Blossomfield Road was considered in detail by the Planning Committee at its meeting on October 5. At that meeting, some local residents spoke against the proposals to fell the trees, whilst the applicant spoke in support.

"As part of the committee process, members had full access to a range of information including two different specialist reports (Cedarwood and Unwin), all comments made by local residents and the professional views of council officers. Members clearly and openly explored all aspects of this proposal in making their decision as did officers in making their recommendations.

"The council notes the matter of tree ownership in so far as it relates to the oak tree but would stress this is a civil matter and not one that the council can consider when making a decision on the felling of the trees.

"Lastly, the council would stress that it places great value on the borough's trees and

especially those with protected status. This is clear through the council's Urban Forestry Strategy and Planting our Future campaign which is overseeing the planting of 250,000 trees in ten years.

"As such the felling of trees is never a decision that is taken lightly but where cases such as this arise, the council is duty-bound to have regard to national guidance and the safety of persons and property. Should the trees go on to be felled, the council can also confirm that mature replacement trees will be planted in their place."

Leader of the Solihull Green Group Cllr Max McLoughlin (Greens, Shirley East) also said: "I've seen many planning applications where developers state that no work has been done to remove trees, but we can see that's not true. More concerning is damage to very old trees with TPOs, which causes dieback, making them unsafe.

"Through the Local Plan process, concerns were raised repeatedly over the proximity of major developments to ancient woodlands. These are planning problems that are caused by weak legislation and insufficient enforcement. The laws to promote biodiversity 'net-gain' are weak.

"You can't replace a tree that has been there for centuries with a sapling. They don't provide the same habitat, amenity, or absorb the same amount of carbon from the atmosphere. We need laws to protect against this kind of damage and the means to enforce them, otherwise, we'll lose vital elements of our environment and the character of the places we live in."

Footage Shows Ancient Woodland Near A20 Completely Destroyed as Locals Left Outraged

By Adam McGroarty, Multimedia Journalist, published on www.kentlive.news

SHOCKING drone footage shows ancient woodland just off the A20 has been destroyed by 'unauthorised' deforestation. Concerned residents of London Road in Addington were outraged to discover the state of the woodland which is said to date back to the 1600s so they immediately got in touch with Tonbridge and Malling Borough Council in a desperate bid to see if anything could be done. The council has since confirmed to KentLive that an enforcement notice has been served.

It said the change of use of land had been "unauthorised". Due to the nature of the historic trees, a protection order is in place around the site.

One local resident, who does not wish to be named, said: "The trees have been there since the 1600s and the whole area has a Tree Protection Order, but to our dismay, a contractor has gone in there and cleared the whole of the forest.

"They have made an entrance and an exit. It looks like they're trying to lay some sort of floor. The council has served an enforcement notice but that doesn't come in for 28 days. We do not have that much time!

"Obviously all residents are up in arms about this and are really worried. Everyone's been complaining, and you can actually see the true community spirit."

One resident who owns a drone decided to fly it above the site to get an aerial view. The resulting footage has since been described by locals as "absolutely shocking".

They contacted their MP Tom Tugendhat who responded to their concerns and has since visited the site. In a statement posted on his Facebook page, he said: "This has come as a big surprise to many in the area and Tonbridge and Malling Borough Council have served a planning enforcement notice.

"If works continue, then I've also asked the Council to consider a temporary stop notice as it is essential that works only take place after planning permission is obtained. This is valuable woodland and as we have seen recently in Tonbridge, there is scope for further action against those who remove trees and woodland without consent first."

In a statement issued to KentLive, Planning



Development Manager for TMBC, Hannah Parker, said: "Our planning enforcement team is actively monitoring the site and formal action is being taken. An enforcement notice has been served regarding the unauthorised change of use of land for the storage of hardcore and the creation of a roadway through the site.

"The notice requires the use of land for the storage of hard core to cease and the removal of all hard core, roadways and means of enclosure from the land. The felling of trees is also under ongoing investigation to determine whether further action is required."

Editor's comment.

So ok, this happened in Kent. What relevance does it have to Broadland?

WAKE UP AND SMELL THE COFFEE. It could happen here tomorrow and may even be happening in your back year right now.

Let's get this straight. A TPO is a piece of paper that says that a tree (or trees) is or are protected. Have you ever seen how easily a chainsaw cuts through a piece of paper?

The local authority has issued an enforcement notice but did you see that horse bolting across the field after the stable door was bolted?

Do you really expect Mark Symonds to know what is going on with the goodness knows how many trees he has TPOs? Do you expect him to hear the chainsaws from every parish.

No. That is our job. 31 years ago when I became a Tree Warden, the then Arboricultural Officer, Maggie MacQueen, told me that I was to be the "eyes and ears of the authority and my parish" and ever since I have endeavoured to do so.

It is my job to respond to the sound of chainsaws and to ensure that TPOs are respected.

How many of us do that?

Far be it from me to leap to the defence of Broadland District Council but if a TPOd tree is deliberately damaged in my parish then I am responsible for letting it happen and not reporting it to BDC.

Furthermore, the comment that "The council has served an enforcement notice but that doesn't come in for 28 days" shows how legislation hampers, or at least doesn't help, our hard pressed local government officers.

I sincerely hope that MP Tom Tugendhat will take this further than saying that it should not have happened. Government needs to give our local authorities the teeth to back up TPOs.

Government has to ensure that it is no longer profitable to a developer or other category of wrong doer to abuse TPOs and Section 211 Notices. Hit them where it hurts. After a term in jail make them spend a year planting woodlands at their own personal expense.

Remember. This could be happening in your parish at this very moment.



“Elderflora: A Modern History of Ancient Trees” by Jared Farmer

A book review by Josie Glausiusz published on the Nature website

ABOUT 45 million years ago, when the Arctic was ice-free, the world’s earliest known mummified trees flourished on what is now Axel Heiberg Island in Canada’s Qikiqtaaluk Region. In 1986, palaeobotanists identified the megaflores as members of *Metasequoia occidentalis*, an extinct redwood species. They had been buried in silt, then frozen, their wood preserved.

The lead palaeontologist “celebrated his eureka by kindling a fire with 45-million-year-old twigs and boiling water for tea time,” writes historian Jared Farmer in *Elderflora*, his expansive global history of grand and venerable trees.

Granted, these plants had been dead since the Eocene epoch. Nevertheless, as the author describes, the incident is part of a troubling pattern in which scientists rejoice at their discovery of the ‘oldest’ tree of their time — and then destroy it.

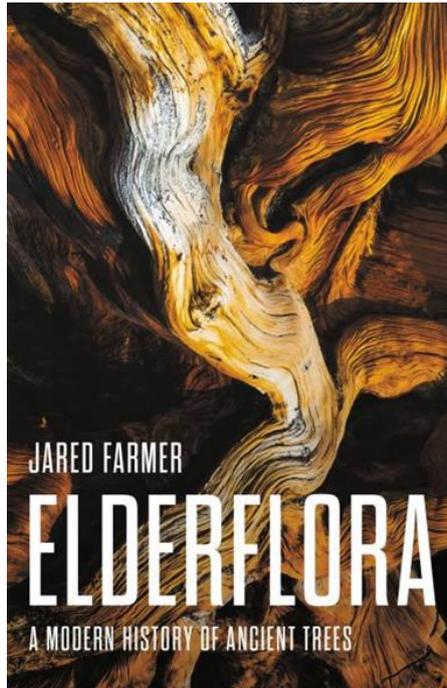
In 1957, for example, Edmund Schulman at the University of Arizona in Tucson spent the summer seeking ancient bristlecone pines in California’s White Mountains. He found three more than 4,000 years old, and named them Alpha, Beta and Gamma.

Then, in the interests of tree-ring science, he chose to “sacrifice” Alpha, taking snapshots as his nephew and a colleague sawed it down. When the University of Arizona issued a press release titled ‘UA Finds Oldest Living Thing’, Farmer writes, “they say nothing about the thing being dead”.

Schulman’s aim was dendroclimatology — the reconstruction of climates using tree-ring data. That lofty motive cannot be ascribed to those who, in 1881, bored a tunnel into the 2,000-year-old Wawona tree in Yosemite National Park, allowing tourists to drive their cars through the 71.3 m high giant sequoia (*Sequoiadendron giganteum*), since toppled.

As *Elderflora* shows, big, old trees are objects of veneration and vandalism, appearing “in the oldest surviving mythologies and the earliest extant texts”. They were associated with gods and heroes, prophets and gurus: they had pivotal roles in the Mesopotamian *Epic of Gilgamesh* and in the Polynesian legend of Rātā, who fells a noble tree to carve a canoe. In more recent times,

European settlers “dispossessed Indigenous peoples and cleared forests with abandon”. Research shows that, for 8,000 years after the glaciers of the last ice age retreated, forests in the Mid-western United States doubled in biomass (A M Raiho et al *Science* 376, 1491–1495; 2022). Just 150 years of industrial logging and agriculture erased this carbon accumulation.



“Imperial conquests and industrial revolutions relied on timber,” Farmer writes. “Woodstock long guns for capturing lands and peoples; naval vessels with mighty masts for transporting the enslaved and the harvests of their labour.” In New Zealand, European settlers decimated the majestic kauri trees, which can live for up to 2,000 years and that once covered 1.2 million hectares of land. The trees’ 50 m trunks became ships’ masts; their resin was made into varnish and linoleum.

Like pines, firs, spruces, cedars, cypresses and redwoods, kauri (*Agathis australis*) is a gymnosperm. These flowerless plants with naked seeds tend to grow slower and live longer than angiosperms, flowering plants that bear fruit. About 25 plant species, most of them conifers, can live for more than a millennium without human assistance, surviving in restricted, vulnerable habitats.

Farmer also offers a global survey of ancient trees that have been protected and exalted. They include olive trees of the Levant (*Olea europaea*); research published this year shows that these were domesticated about 7,000 years ago for their fruit and oil (D Langgut and Y

Garfinkel *Sci Rep* 12, 7463; 2022).

In Africa, the baobab (*Adansonia* spp) is both the longest-lived tree and the largest, offering shade and shelter, foods, medicines and textiles. Enslaved Africans planted baobabs in the Caribbean; some survive still. *Ginkgo biloba*, a species that dates back 390,000 years, survived only in China, whence it was spread around the world in the past millennium. A grove of ginkgo trees survived the atomic bombing of Hiroshima in Japan in August 1945, pushing out new buds the following spring.

The planet’s current tree cover, Farmer writes, includes 3 trillion large plants covering about 30% of all land. It is, in fact, expanding, but the new cover consists mostly of shelter belts (trees planted to protect crops or animals), temperate-zone timber crops and tropical plantations of eucalyptus and palm oil. A shrinking proportion of tree cover is made up of species-rich old-growth communities.

“What would humans and non-humans stand to lose if these survivors all died prematurely? A world of things,” Farmer writes. “Old trees sustain forest communities” with their seeds and litter. Other plants grow on them, and animals live in them. Their roots share nutrients with other organisms via underground fungi. Groups of “Old Ones” are carbon sinks. Large-scale monocultures are shorter-lived and take less greenhouse gas out of circulation.

However, even bygone trees of the once-tropical Arctic might offer lessons for a warming world. Palaeobotanist Hope Jahren, in her 2016 memoir *Lab Girl*, describes how she spent three summers on Axel Heiberg Island, digging “through a hundred vertical feet of time”. Fir, cypress, larch, redwood, spruce, pine and hemlock trees populated this lush conifer forest, with an understory of angiosperms: maple, alder, birch, hickory, chestnut, beech, ash, holly, walnut, sweetgum, sycamore, oak, willow and elm. These plants thrived even through three months of winter darkness and three of constant summer light.

“Here stood one of the great forests of all time,” Farmer writes. Today, as the Arctic warms nearly four times as fast as any other place on Earth, the genomes of species related to the trees of this mummified forest might be adaptable enough for the trees to flourish in a rewarmed planet, he says. Old trees have much to teach us: we would be wise to listen.

Tree Preservation Orders and Conservation Area News

Broadland Tree Preservation Orders Served, Confirmed and Revoked

TPO No	Address	Served	Trees Protected	Status
2022 No 11	Land rear of 14 Norwich Road, Strumpshaw	21/09/2022	A1 various species	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 & T2 holly – fell.	31/12/2019
20201760	Land West of Abbey Farm Commercial Park, Church St, 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
20220220	The Hollies, 43 Waterloo Road, Hainford	TPO	T1 & T2 species unknown – fell. T3 species unknown - remove dead overhanging branches.	Appeal lodged
20220625	The Norwich Golf Club, Drayton High Road, Hellesdon	TPO	T1 spruce - 4m height reduction. from 14m to 10m.	13/04/2022
20221253	Waytes House, Church Street, Horsham St Faith	211	T1 <i>Picea</i> – fell. T2 <i>Ailanthus altissima</i> & T3 <i>Acer pseudoplatanus</i> – approx 10m tall. Reduce by 2m. T4 <i>Chamaecyparis lawsoniana</i> – approx 4m tall. Reduce by 1.5m.	Approved
20221270	10 The Avenue, Wroxham	TPO	T1 beech - 12m high and 7m wide. Fell.	Refused
20221286	Robinswood, 4 The Avenue, Wroxham	TPO	T1 beech – fell. T2 beech - reduce and balance crown. Crown radius at present to the south and east is approx 7.5m. Propose a 2.5m tip reduction to south and east only to help balance crown profile. This would leave a 5m radius at these co-ordinates.	Approved
20221295	Land to rear of 29 Morgans Way, Hevingham	TPO	Oak – reduce	09/08/2022
20221307	11 Orchard Close, Acle	TPO	T1, T2 and T3 pine- thin canopy by 30% to reduce pigeon fouling, needle dropping and shading pine.	Approved
20221313	Lakeside, Haveringland Hall Park, Haveringland	TPO	T1-T6 row of large poplars close to high voltage power lines. Reduce overhang back to trunk and reduce height by approx 5m. Start height approx 25m finish 20m. Overhang spread approx 6m finish 0m. Area is being transformed into a picnic site.	12/08/2022
20221318	Charles House, Beech Avenue, Taverham	TPO	T16 maple - crown lift to 3.5m and crown thin by 25%. Request for branches surrounding the streetlamp to be thinned to increase light penetration and avoid damage to the lamp. T14 oak - approx spread 7m. Crown lift to 3.5m. Request a reduction of limbs up to a maximum of 2.5m from the ground floor of the house. A similar reduction of limbs on the far side of the tree would allow the natural crown shape to be maintained. The trunk of the oak tree is 5.9m from the house.	Approved
20221327	42 Station Road, Foulsham	211	Ash – dieback. Fell.	Approved
20221351	10 Saint Michaels Close, Aylsham	TPO	T1 silver birch - crown reduction and reshape. Approx height 20m reduce to 15m. Width approx 7m reduce to 5.25m.	Split decision
20221360	Oakhill Wood, Oakhill, Brundall	TPO	T1 sycamore – 10m tall and 1.0m dbh. Remove lowest branch overhanging garden of 8 Oakhill.	Approved
20221369	Malan House, 1 Barnby Road, Badersfield	TPO	T91 Lawson cypress - fell.	Approved
20221388	Sir George Morse Park, Morse Pavilion, Laundry Lane, Thorpe St Andrew	TPO	T1 oak in corner of service yard. Overhanging neighbours' property and reducing the light.	Approved

20221389	49 South Walsham Road, Acle	TPO	T1 beech - crown lift to 3.5m over garden and grass verge. Remove epicormic growth up to 4m. Crown lift over highway up to 5m if required Reduce low limb growing towards entrance of property to provide adequate visibility when exiting drive	Approved
20221396	125 Drayton High Road, Drayton	TPO	G1 Scots pine - remove ivy allow for re-inspection. Deadwood. Crown raise to 5m over highway for vehicular clearance. 2 x pine - reduce over extended lateral limbs over highway back to pruning points as per annotated photographs provided to alleviate end weight on weak unions.	Split decision
20221399	The Hollies, 43 Waterloo Road, Hainford	TPO	T1 Hornbeam and T3 Leyland cypress - fell. T2 holly - approx height 12m. Trim by 4m.	Split decision
20221401	19 Colkett Drive, Old Catton	TPO	T1 beech - remove deadwood and reduce height from 18m to 16m and spread from 7m to 5m. T2 oak - remove deadwood and crown lift to 2.3m.	Approved
20221403	329 Saint Faiths Road, Old Catton	TPO	Mature oak - remove larger deadwood. Raise lower hanging branches to give 5.5m clearance. Remove split and hanging branch and adjacent branch with lesion in lower crown to south-west (over 30mph sign). Tip reduce branches growing on limb at 6.5m from ground level to the north-west (toward house). Tip-reduce these branches back to alternative growth points removing approximately 3m to 3.5m leaving a crown radius of 6.5 to 7mm.	Approved
20221409	Oak House, 17 High Street, Cawston	211	<i>Quercus rubra</i> - approx 18m height and 20m width. Lift canopy to 6m to give clearance over buildings. Thin crown by 25% removing crossed and suppressed branches and deadwood. Reduce heavy over-extending limbs by 1.5m away from courtyard area and by 1m from chimneys. Remove 3m stub and tidy two previous stub cuts.	Approved
20221414	The Oaks, 1 Church Lane, Wroxham	TPO	Sycamore - approx 6-7m tall. Reduce to 3m.	Approved
20221415	Brackens, 38 Nightingale Drive, Taverham	TPO	Beech - approx 10m in height and 3m wide. Reduce overhanging branches by no more than 2m.	Approved
20221424	Lantern Cottage, 23 High Street, Coltishall	211	T1 willow - reduce crown by up to 3m from 8m to 5m.	Approved
20221428	Laurel Cottage, 12 The Street, Coltishall	211	T1 ornamental plum - reduce to previous cuts, approx 2m from 5m to 3m in height & 1.3m from the sides 3.5m to 2.2m. T2 plum - reduce by 1.5m in height from 4.5m to 3m & 1.5m from sides 3.5m to 2m.	Approved
20221437	41 Oakdale Road, Brundall	TPO	G1 sycamore shelterbelt – southern radial spread of 7.5-8m to be reduced to around 5m in order to alleviate end loading of branches, bias and excessive shading to garden. Crown lift to 6m. T2 sycamore - fell with small, dead stem immediately to west.	Approved
20221442	5 Copeman Road, Little Plumstead	TPO	T1 cherry - fell. T2 & T3 cherry - height 8m approx. Crown reduction of approx 2m using drop crotch technique.	Approved
20221445	The Cottage, 4 The Street, Burgh	211	Beech - 5m from house approx 3m from The Street. Branches need clearing from telephone lines. Walnut - approx 14m high. Reduce height by 5-6m and laterals by 1-2m and shape tree approx 8m from garage. Walnut - remove dead wood.	Approved
20221446	39 Blenheim Crescent, Sprowston	TPO	T1 copper beech - approx height 11m and width 8m. Reduce height by 3m and width by 2m on all sides.	27/09/2022
20221447	2 South Walk, Thorpe End	211	G1 4 x ash & T1 Norway spruce - fell.	Approved
20221455	7 Colkett Drive, Old Catton	TPO	T1 silver birch - fell and remove stump due to dramatic decline.	Approved
20221464	The Old Chapel, The Street, Oulton	211	T1 sycamore - height 17m. Remove epicormic growth up to 4m to primary union. T2 walnut - height 15m. 2m reduction overall. 3m reduction to western corn to reduce loading. 10% thin, crown clean. Lift to 3m leaving lateral scaffolding.	Approved
20221465	Tanglewood, 25 South Avenue, Thorpe St Andrew	211	T1 holly, G2 laurel, T3 cherry, G4 2 x holly, G5 3 x spruce and G6 2 x Lawson cypress – fell. G7 3 x laurel growing into surrounding trees - reduce to coppice stools/low pollards at around 1m to be managed as understory trees. Current height 5-6m.	Approved
20210472	1 Havergate, Horstead With Stanninghall	211	T2 oak – deadwood crown and remove crossing and suppressed branches. Raise lower branches over access road and scheme access on south and west for ground clearance of 4m. Reduce lower branch tips to north to allow a 2m clearance of bin store.	Approved

20221474	Cypress House, 25 Staithe Way Road, Wroxham	211	T1-T2 conifers - height 10m. Crown raise to 3.5-4.0m. T3 conifer – fell.	Approved
20221475	Shedagee, Beech Avenue, Taverham ,	TPO	Sycamore - crown raise to approx 4m to allow vehicle access.	Approved
20221480	Woodlands, 12 Staithe Way Road, Wroxham	211	T1 cypress, T2 large conifer & T4 cherry – fell. T3 reduce (or remove completely) height of conifer hedge to rear of the garden by between 1.8 and 3.0m back to original height.	Approved
20221481	Littlewood Community Woodland, Drayton	TPO	Sycamore - approx height 18m and spread 25m. Crown reduce whole crown by 3m. Beech - section fell to a 4m habitat stem. Willow - pollard at 4m at failed limb	Approved
20221482	Kevill Davis Drive public open space, Kevill Davis Drive, Little Plumstead	TPO	Beech - approx height 9m and spread 6m. Crown reduce main limbs by 4m. Plane - approx height 16m and spread 6m. Reduce crown by 6m. Reduce spread by 3.5m. To produce smaller pollard crown for long-term management as tree is too big for its location long-term.	Approved
20221493	Greenacres, 27 Church Lane, Burgh-next-Aylsham	211	T3 white mulberry - cut back to previous pruning points. T19 black mulberry - cut back approx 1.5m to previous pruning points & reshape.	Approved
20221494	The Dell, 42 Wood Lane, Burgh	211	4 large conifers – fell.	Approved
20221502	155 Norwich Road, Wroxham	TPO	3 x conifers - crown lift by 3m. Reduce heavy limbs back by 2m. Pine - fell. Pine - Approx 6m. Reduce by 2m.	23/09/2022
20221508	Bircham Centre, Market Place, Reepham	211	T1 holly – fell.	Approved
20221512	2 Vicarage Road, Salhouse	211	T1 Leylandii - 12m high. Remove to 6m pole.	Approved
20221514	272 Fakenham Road, Taverham	TPO	T1 cherry and T2 cypress - remove.	20/09/2022
20221517	20 Millgate, Aylsham	211	T1 holly – remove.	Approved
20221518	The Thatched Barn, 11 The Maltings, Millgate, Aylsham	211	T1 oak - approx height 20m. Crown spread 18m and length of limbs to be pruned 9m. Reduce limbs on the western side to the property line by 1.5m.	Approved
20221519	Spinney Acres, 7 Ringland Road, Taverham	TPO	One oak tree and one walnut tree. Both require complete removal.	21/09/2022
20221523	Braemar, 11 Lower Street, Salhouse	211	Copper beech - 9m height, 6.5m width. Crown raise to 5.2m over highway edge and 2.4m over footpath. Crown reduce over highway by 1.5m, crown reduce height by 2.0m and crown reduce by 2.0-2.5m toward thatched property. Reduce rouge ends by approx 1.5m on garden and driveway side to re-shape.	Approved
20221528	19 Hautbois Road, Badersfield	TPO	Cherry – fell.	22/09/2022
20221533	The Old Rectory, Church Street, Reepham	211	Various tree works as per schedule included in this application.	Approved
20221534	Wherry House, 300 Saint Faiths Road, Old Catton	TPO	Beech – remove.	23/09/2022
20221535	75 Mill Lane, Aylsham	TPO	T1 Scots pine – fell.	23/09/2022
20221536	81 Spixworth Road, Old Catton	211	T1 yew - crown lift to 2.5m (to 5m where over apple to the west). T2 sweet chestnut - remove major deadwood. T3 apple - reduce height from 7m to 2m. T4 cherry laurel - reduce northern crown spread from 4m to 2m, eastern crown spread over neighbour's garage from 4m to 1m.	Approved
20221542	The Old Rectory, The Green, Heydon	211	Crown lift 9 x mature beech trees that overhanging stables. Cut back any secondary branches growing towards or touching tiles. A few scaffold branches resting on ridge tiles either need to be cut off all together or pruned back to a suitable growth point away roof. Ideally anything within 1m of the tiles needs to be reduced back or cut off to prevent further damage or problems in the near future.	26/09/2022
20221559	23 Foundry Close, Foulsham	TPO	Tree needs thinning and reducing in size. Too tall and too wide. Works to be carried out by a qualified tree surgeon.	30/09/2022
20221567	17 Belmore Close, Thorpe St Andrew	TPO	T1 beech - evidence of <i>Meripilus giganteus</i> and entire crown wilted mid-summer 2022. Dismantle to a monolith at 5-6m (just above main breaking union).	03/10/2022
20221569	24 Bishops Close, Thorpe St Andrew	211	T1 hazel, T2 large <i>Philadelphus</i> and T3 multi-trunked hazel - some stems are over 75mm diameter at 1.5m above ground. Coppice.	Approved

20221577	St Brides, 5 Burgh Road, Aylsham	211	T2 snake bark maple - approx 5m in height. Reduce by 2m. T3 purple plum - approx 6m in height. Reduce by 3m. T4 rowan - approx 6m in height. Reduce by 3m. All trees listed above we wish to crown lift over highway and pathway to comply with highway regulations.	Approved
20221581	86 Homelea Crescent, Lingwood	TPO	14400 pear, 14404 lilac and 14412 silver birch – fell. 14408 lime - reduce branches for garden clearance 0.5-1m	04/10/2022
20221591	Abbots House, 25 White Hart Street, Aylsham	211	T1 sycamore, T2 silver birch, T3 pear and T4 apple – fell.	Approved
20221592	5 The Meadows, Aylsham	TPO	T1 oak in front boundary hedge (co-dominated stemmed at approx 2-2.5m previously hidden) to be removed and replaced in a more suitable location.	06/10/2022
20221593	Wroxham Cottage, 15 The Avenue, Wroxham	211	T1 beech - 16.4m/9m. Crown raise to 4m and create 4m clearance from garage roof. T2 holly - 4m/3m. Fell. T3 conifers - 4m & 6m. Fell. T4 horse chestnut - 5.2m dead. Fell. T5 holly - 6m. Fell. T6 sycamores x 2 - 10m/4m. Fell. Close to property and shading. T7 sycamore - 10m/5m. Crown raise to clear building by 2.5m.	06/10/2022
20221595	12 Oakdale Road, Brundall	TPO	Oak - approx 15m in height. Reduce branches back by 2.5m to provide clearance from the side elevation.	17/10/2022
20221593	Wroxham Cottage, 15 The Avenue, Wroxham	211	T1 beech 16.4m/9m - crown raise to 4m and create 4m clearance from the roof of garage. T2 holly 4m/3m, T3 conifers 4m & 6m, T4 horse chestnut dead), 5.2m and T5 holly 6m - fell. T6 sycamores x 2 10m/4m - fell. Close to property and shade. T7 sycamore 10m/5m - crown raise to clear building by 2.5m.	06/10/2022
20221602	St Margarets House, 1 Staithe Way Road, Wroxham	211	T1 <i>Tilia</i> spp - pollard to a height of 10m.	10/10/2022
20221603	2 Church Close, Coltishall	211	T1 beech - approx 18m in height. Reduce lowest limb over house by 5m, back to a suitable growth point to bring the limb behind the gutter and away from the roof. T2 holly - remove tree completely. T3 sycamore - approx 21m in height. Reduce lowest cluster of branches growing towards house by 2m. T4 beech - approx 21m in height. Lowest 2 limbs are growing heavily and quite prominently over garden. Reduce limbs by 3m back to suitable growth points. T5 beech - approx 18m in height. Lowest 4 limbs growing over the summer house roof to be removed back to boundary.	11/10/2022
20221606	20 Millgate, Aylsham	211	T1 holly – fell.	10/10/2022
20221621	Weston Park, Morton Lane, Weston Longville	TPO	Removal of 3 dead oak trees, 1 dead Norway spruce and 1 ash.	Approved
20221630	Old Bakery Court, Coltishall	211	T1 sweet chestnut - crown reduce from building to abate nuisance. T2 sycamore - prune back overhang of self-seeded trees. T3 <i>Prunus cerasifera</i> 'Pissardii' - crown reduce by 1-1.5m, crown lift 0.5m and re-shape. T4 lime - crown lift over highway to 2m-2.5m,	14/10/2022
20221639	Copperbeech House, 4 Library Close, Blofield	TPO	T1 sycamore – fell.	17/10/2022
20221640	The Old Unicorn, 56 Station Road, Foulsham	211	Willow – fell.	17/10/2022
20221642	The Beeches, 32 Blofield Road, Brundall	TPO	T1 beech - reduce height by approx 4m from 10m to 6m.	17/10/2022
20221643	Spinney Acres, 7 Ringland Road, Taverham	TPO	01 oak - reduce lower branch growing towards house back to knuckle, approx 2.7m. 02 oak - reduce lower epicormic growth to branch break. 03 oak - end tip reduction. W1 walnut - reduce lower branches x 2 by approx 1.6m.	12/10/2022
20221646	2 Bure Way, Aylsham	211	G1 overgrown conifer hedge and 1 tree - reduce to hedge height.	17/10/2022
20221651	Land at Barnby Road, Badersfield	TPO	T129 cherry - presence of white rot at base and considered unsafe for retention. Fell and replant with 2 x new trees.	18/10/2022
20221652	Camno, 17 Mill Road, Blofield	TPO	Not sure of species - overhanging property from neighbours' garden. Dropped sap and made patio black. My new Rattan garden furniture is covered in pine needles and my summer house roof is constantly green and needs replacing.	Withdrawn

20221656	The Old Rectory, The Green, Heydon	211	Mature beech x 9 - overhang old stables. Crown by approx 6m.	19/10/2022
20221657	Koru House, 16B Harvey Lane, Thorpe St Andrew	TPO	G1 row of lime - trim back some of new growth. While no reduction in current height of the trees is intended at this time, permission is also sought to carry out minor work to level off their height. G2 various trees significantly overhanging property. Cut back overhanging branches close to boundary fence.	19/10/2022
20221666	61 Charles Close, Wroxham	211	T1 sweet chestnut - re-pollard back to previous points. T2 beech – fell.	18/10/2022
20221669	Felthorpe Hall, 81 The Street, Felthorpe	TPO	T1 sycamore - major crown dieback, cavity at 6-7m, Dryads saddle ffb in union at 6m. Reduce crown to main union at 6-7m pollard/habitat from 20 m. T2 beech - large open cavity from ground to 1m, historic mechanical damage trackside. Good reaction wood formation and healthy canopy no ffb seen. Sympathetic height crown reduction to bring crown within protection of woodland tree canopy of no more than 1-3 m from 25 m. T3 oak - historic stem lean towards walled garden. Small cavity in main stem. Reduce canopy (lean side) by 2m from 20m and inspect small cavity at 8m in main stem. T5 oaks x 6 - low canopies along vista to lake. Crown lift all oaks to 3.5m along vista. T7 oak - main top scaffold limb loss /storm damage. One sided to west, heavy end loaded branches. Reduce remaining canopy west to prevent further collapse and encourage tree to self-optimize regrowth. Estimated spread reduction of 2-3m from 8-9m spread.	19/10/2022
20221670	The Old Granaries, 17 White Lion Road, Coltishall	211	T1 beech, T2 sweet chestnut, T3, T4 & T8 alder, T6 poplar, T7 willow and T9 ash - crown lift to 2.4m. T10 willow - ???	18/10/2022
20221671	Rolston House, Norwich Road, Horstead with Stanninghall	211	T1 apple and G1 <i>Cupressus</i> x 2 - fell. T2 hazel - reduce back to stem wood to maintain. 3m high. T3 Cherry and T4 purple Norway maple - crown clean and reduce by up to 1.5m. Height 5m. T5 silver birch - 3m reduction, 2.5 crown raise. Height 8m. G2 mixed species shrubs - clear area ready for replanting of more suitable specimens. G3 hawthorn - fell and replace with evergreen hedge.	20/10/2022
20221677	Greenbraec, 132 Lower Street, Salhouse	211	Sycamore - raise by 11.5m to ground level and the stump treated.	21/10/2022
20221680	4 Connells Mews, Saint Andrews Park, Thorpe St Andrew	TPO	G1 10 X Lime - Approx 20m high. Reduce basal growth to a 1.5m hedge and trim sides as previously done. Remove epicormic growth on main stems and crown lift up to approx 5m. This is to allow light into the area. Dead wood situated in crown to be removed to make the area safe.	24/10/2022
20221689	Chestnut Meadow Barn, The Street, Halvergate	211	Field maple growing directly under utility cables. ???	25/10/2022
20221692	Land at Oakhill, Brundall	TPO	T1 oak - current height and crown spread 20m and current dbh approx 1.8m. Western portion of crown expending over house roof by a significant amount and branches hit roof during wind. Reduce length of the 2 lowest branches on western side of crown by up to 4m, back to growth points, in order to give 3m clearance of roof. In addition, raise the small lower branches of western side of trunk to a height of 3m in order to allow enjoyment of that part of garden.	25/10/2022
20221693	Abbotts Hall Farm House, Drabblegate, Aylsham	211	T1 hornbeam - approx 15m. Raise by 2m and reduce by 2m. T2 & T3 hornbeam – fell.	26/10/2022

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 actual decision or the date on which the application was received by Broadland District Council.
- 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.