



Nature's Calendar news Spring 2009

Welcome to the 12th edition of Nature's Calendar news. We report on the sightings from spring 2008; not quite so record-breaking early as 2007, but still an interesting season in its own right.

This is our special tree edition – Jo Mugford, our People Engagement Manager reviews our successful tree planting campaign, Tree For All. Nick Atkinson, the Trust's new Carbon Manager unlocks the question 'should tree planting be used for carbon offsetting?' Meanwhile, the back page gives information about our ambitious plans to create the largest new native forest in England. I hope you find these articles of interest.

In recent weeks we have felt privileged to host two international guests: representatives from India and Australia with fledgling phenology recording schemes – I hope it is exciting to know that your records are contributing to a global, as well as a national understanding of our natural world.

Kate Lewthwaite

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Phenology Project Manager



Spring 2008 analysis – Kate Lewthwaite and Nick Collinson

Summary

A very warm early spring, an average March and April and above-average later spring, led to the early sightings we have become used to; although these were not as extreme as the exceptional spring of 2007 due to the mild weather not being sustained throughout the period.

Weather

January was the most striking month of spring 2008, with temperatures of 2.8°C above average. In England, the Met Office confirmed it was the 4th warmest January since 1914.

February and May were also exceptionally warm, but the other spring months were much closer to the seasonal average.

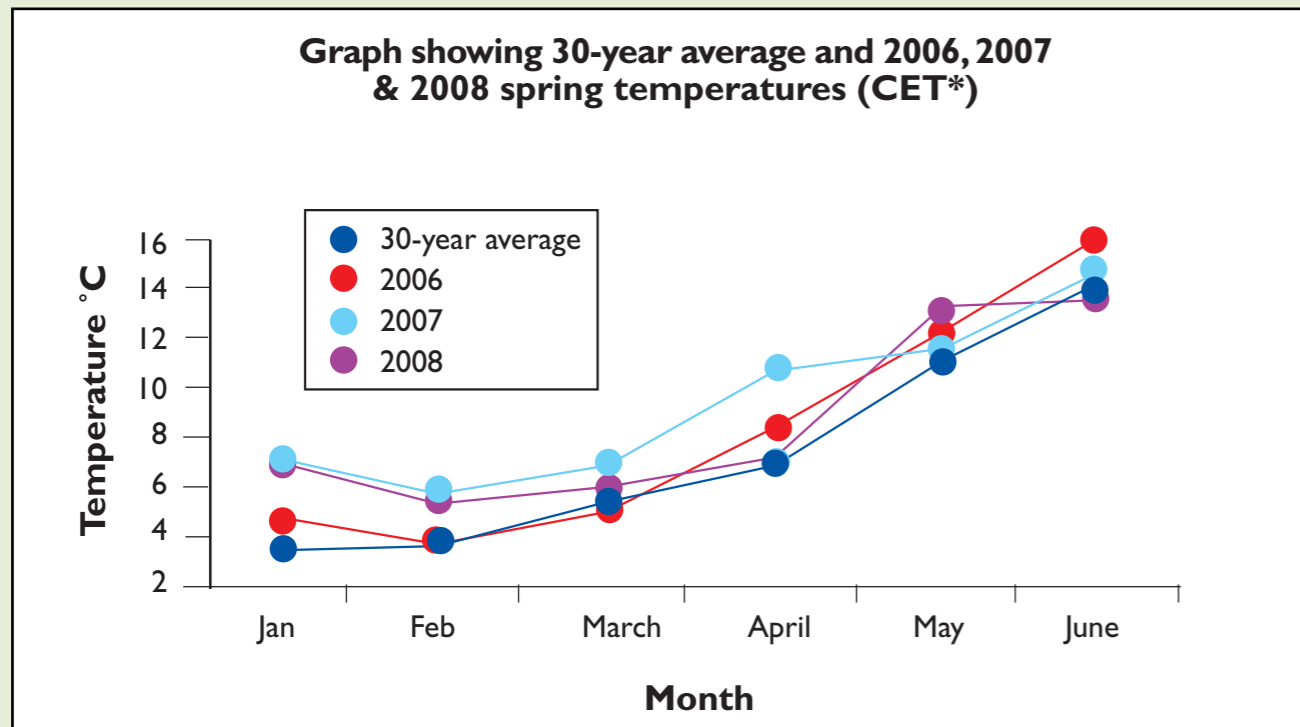


Figure 1: 2008 was another warmer than average year, except for April, but was generally cooler than 2007

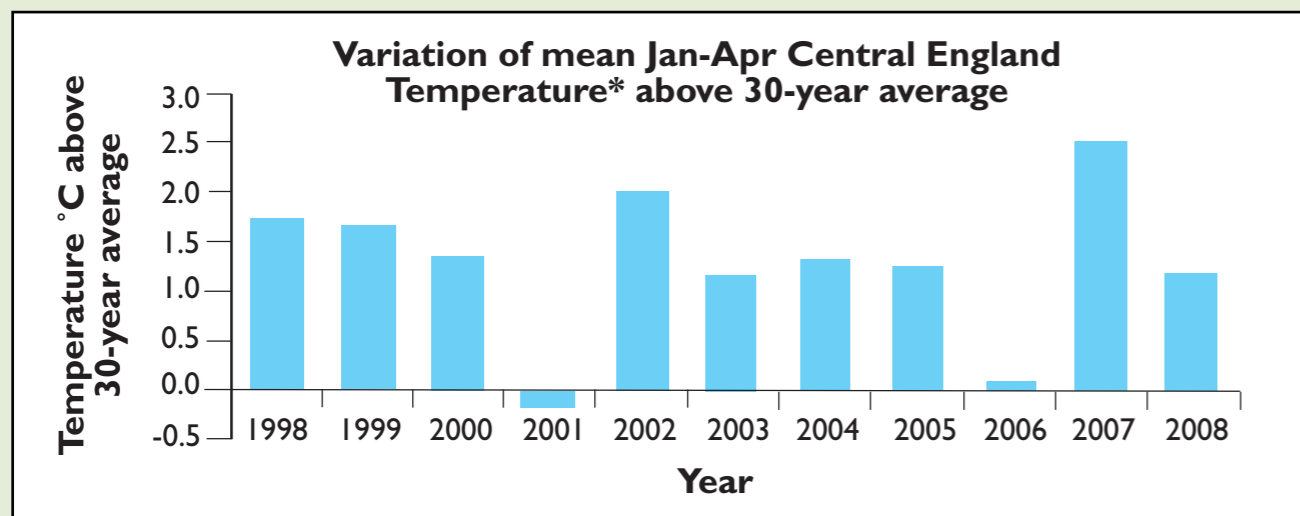


Figure 2: 2008 was 1.2°C above average, but not as warm as the exceptional 2007

*CET – Central England Temperature is representative of a roughly triangular area of the UK enclosed by Bristol, Lancashire and London. We use it because it is the longest available instrumental record of temperature – with monthly records dating back to 1659.



WTPL/Gerald Steward

Phenology

With a spring consisting of average or above average temperatures, we would expect phenological timings to be early, but not as strikingly early as 2007. For each group overall that was indeed the case.

Birds

All migratory events except blackcap were earlier than 2001 (our benchmark year that represents the 30-year temperature average). However, the majority were not as early as 2007; this is as would be expected, given unlike 2007, 2008 spring temperatures did not remain above average throughout. Also 2007 was the mildest spring on record. Resident bird breeding activity overall showed the same pattern. So bird activity was early, but was typical of a warm year, and not showing anything exceptional.



WTPL/Christine Martin

Insects

Average insect sightings were all earlier than the 2001 benchmark but not as early as in recent warm years - many were probably affected by relatively cool (ie near the seasonal average) temperatures in March and April.



WTPL/Pete Holmes

WTPL/John Webb

WTPL/Ann Tomlin

WTPL/David Rowday



Amphibians

All sightings were earlier than the 2001 benchmark. Frogspawn was especially early, probably affected by the very mild temperatures in January and February.



First leaf and budburst

All events were earlier than the 2001 benchmark, but most weren't as early as 2007. Budburst dates were more similar to 2007, but first leaf was probably delayed by the relatively cool March and April temperatures.



Plants and trees flowering

All events were earlier than the 2001 benchmark; early season events like flowering in colt's-foot, hazel and snowdrop showed the earliest responses, again probably responding to the mild January and February conditions.

| Group and event | Comparison with 2001 | Comparison with 2007 |
|--------------------------|----------------------|----------------------|
| Migrant bird arrival | 4.8 days earlier | 0.5 days later |
| Resident birds breeding | 5.8 days earlier | 2.9 days later |
| Insects | 12.2 days earlier | 10.9 days later |
| Amphibians | 13 days earlier | 1.5 days later |
| First leaf | 7.3 days earlier | 5.4 days later |
| Budburst | 9.7 days earlier | 0.9 days later |
| Plant and tree flowering | 13.3 days earlier | 3.2 days later |

| Year | UK Average 2001 | UK Average 2005 | UK Average 2006 | UK Average 2007 | UK Average 2008 | England Average 2008 | Wales Average 2008 | Scotland Average 2008 | NI Average 2008 |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------|--------------------------|-----------------------------|-----------------------|
| Tree and shrub first leaf | | | | | | | | | |
| Ash | 10 May | 7 May | 5 May | 30 Apr | 2 May | 1 May | 5 May | 11 May | 11 May |
| Beech | 2 May | 24 Apr | 28 Apr | 19 Apr | 27 Apr | 26 Apr | 28 Apr | 4 May | 1 May |
| Silver birch | 22 Apr | 12 Apr | 23 Apr | 11 Apr | 16 Apr | 15 Apr | 18 Apr | 29 Apr | 26 Apr |
| Horse chestnut | 15 Apr | 5 Apr | 18 Apr | 4 Apr | 6 Apr | 5 Apr | 4 Apr | 20 Apr | 13 Apr |
| Elder | 30 Mar | 13 Mar | 29 Mar | 8 Mar | 3 Mar | 2 Mar | 9 Mar | 9 Mar | 12 Mar |
| Hawthorn | 3 Apr | 24 Mar | 9 Apr | 18 Mar | 13 Mar | 11 Mar | 18 Mar | 3 Apr | 17 Mar |
| Pedunculate oak | 6 May | 24 Apr | 3 May | 16 Apr | 26 Apr | 25 Apr | 21 Apr | 7 May | 3 May |
| Rowan | 23 Apr | 14 Apr | 23 Apr | 13 Apr | 15 Apr | 14 Apr | 15 Apr | 28 Apr | 19 Apr |
| Sycamore | 23 Apr | 12 Apr | 24 Apr | 11 Apr | 18 Apr | 18 Apr | 20 Apr | 26 Apr | 22 Apr |
| Grasses | | | | | | | | | |
| Lawn first cut | 1 Apr | 13 Mar | 2 Apr | 9 Mar | 11 Mar | 10 Mar | 13 Mar | 11 Apr | 21 Mar |
| Meadow foxtail flowering | 18 May | 8 May | 14 May | 29 Apr | 6 May | 7 May | 2 May | 18 May | 15 May |
| Birds – migrants | | | | | | | | | |
| Cuckoo | 5 May | 30 Apr | 29 Apr | 29 Apr | 30 Apr | 29 Apr | 2 May | 2 May | 7 May |
| House martin | 1 May | 29 Apr | 25 Apr | 25 Apr | 26 Apr | 26 Apr | 28 Apr | 27 Apr | 26 Apr |
| Swallow | 25 Apr | 20 Apr | 17 Apr | 19 Apr | 20 Apr | 20 Apr | 18 Apr | 26 Apr | 19 Apr |
| Swift | 10 May | 5 May | 4 May | 4 May | 5 May | 5 May | 5 May | 4 May | 3 May |
| Bird activity | | | | | | | | | |
| Blackbird nesting | 27 Mar | 20 Mar | 27 Mar | 18 Mar | 20 Mar | 19 Mar | 19 Mar | 26 Mar | 22 Mar |
| Blackbird feeding young | 27 Apr | 20 Apr | 27 Apr | 20 Apr | 22 Apr | 22 Apr | 27 Apr | 29 Apr | 2 May |
| Rooks nesting | 12 Mar | 4 Mar | 9 Mar | 3 Mar | 27 Feb | 27 Feb | 28 Feb | 27 Feb | 26 Feb |
| Blue tit nesting | 4 Apr | 28 Mar | 5 Apr | 26 Mar | 29 Mar | 28 Mar | 5 Apr | 8 Apr | 2 Apr |
| Blue tit feeding young | 15 May | 11 May | 16 May | 6 May | 10 May | 10 May | 20 May | 15 May | 14 May |
| Song thrush first heard | 19 Mar | 11 Feb | 14 Feb | 8 Feb | 6 Feb | 4 Feb | 2 Feb | 21 Feb | 18 Feb |
| Flowering | | | | | | | | | |
| Blackthorn | 3 Apr | 17 Mar | 9 Apr | 11 Mar | 10 Mar | 8 Mar | 17 Mar | 12 Apr | 25 Mar |
| Bluebell | 25 Apr | 12 Apr | 27 Apr | 9 Apr | 10 Apr | 9 Apr | 9 Apr | 28 Apr | 22 Apr |
| Lesser celandine | 15 Mar | 26 Feb | 18 Mar | 23 Feb | 19 Feb | 18 Feb | 14 Feb | 16 Mar | 29 Feb |
| Horse chestnut | 10 May | 30 Apr | 6 May | 21 Apr | 3 May | 2 May | 30 Apr | 13 May | 8 May |
| Hawthorn | 11 May | 30 Apr | 8 May | 20 Apr | 30 Apr | 30 Apr | 2 May | 15 May | 10 May |
| Snowdrop | 4 Feb | 20 Jan | 31 Jan | 21 Jan | 21 Jan | 21 Jan | 19 Jan | 25 Jan | 21 Jan |
| Amphibians | | | | | | | | | |
| Frogspawn | 12 Mar | 6 Mar | 15 Mar | 26 Feb | 26 Feb | 27 Feb | 9 Feb | 7 Mar | 2 Mar |
| Tadpoles | 10 Apr | 30 Mar | 10 Apr | 26 Mar | 30 Mar | 30 Mar | 14 Mar | 7 Apr | 3 Apr |
| Insects | | | | | | | | | |
| Bumblebee (red-tailed) | 7 Apr | 6 Mar | 6 Apr | 22 Mar | 19 Mar | 18 Mar | 17 Mar | 10 Apr | 7 Apr |
| 7-spot ladybird | 1 Apr | 13 Mar | 22 Mar | 6 Mar | 12 Mar | 12 Mar | 27 Mar | 21 Mar | 18 Mar |
| Butterflies | | | | | | | | | |
| Orange tip | 8 May | 26 Apr | 3 May | 16 Apr | 29 Apr | 28 Apr | 30 Apr | 7 May | 3 May |
| Peacock | 14 Apr | 29 Mar | 14 Apr | 19 Mar | 2 Apr | 1 Apr | 3 Apr | 20 Apr | 3 Apr |
| Red admiral | 7 May | 7 Apr | 22 Apr | 16 Mar | 27 Mar | 26 Mar | 17 Apr | 25 Apr | 23 Apr |
| Small tortoiseshell | 14 Apr | 27 Mar | 13 Apr | 25 Mar | 2 Apr | 1 Apr | 30 Mar | 21 Apr | 1 Apr |

Table showing UK average dates for a selection of spring events 2005-2008. 2001 is shown as our marker 'normal' year.

Tree planting: WTP/L/Niall Benvie



Tree For All – every child should have the chance to plant trees

Jo Mugford, People Engagement Manager

When Tree For All was conceived, we had no idea of the wide variety of people who were prepared to get muddy and inspired by planting a tree. We have met many amazing characters along the way including celebrities, politicians, leading businessmen and thousands upon thousands of excited children whose boundless enthusiasm never fails to amaze. In fact, the number of children who have planted a tree with us has just topped one million.

For some of the one million, it was their first ever visit to a wood, for most it was the first time they had ever been given the chance to plant a tree. All were proud of this new achievement. Evidence from teachers, plus testimonials from the children themselves, shows that the planting experience genuinely touches them and fires their enthusiasm to learn more about trees, woods and nature as a whole.

The Woodland Trust believes that every child should have the chance to plant trees. Five years ago, when we embarked on Tree For All, the ambitious target of enabling a million children to take part seemed a far off dream. Today we've raised our sights and are now heading for two million.

Planting on this scale starts to make a significant difference, but much more is needed to green up the UK; one of Europe's least wooded places. By performing a simple, tangible act of

hope, we expect a generation to be inspired to respect, understand and value trees in their world.



You can get involved with Tree For All in a number of ways:

- Attend one of the many community events organised by us or our partners, by visiting www.treeforall.org.uk/getdigging or calling 0800 026 9650



WTP/L/Nick Cobbing

- Organise your own tree planting event, register your event with us and receive an event pack containing: template press release, template poster and kids' claim cards at www.treeforall.org.uk/getdigging

Register your event and you may be eligible for a £100 grant. Find out more about this on the back page of this newsletter.

- Schools and youth groups can apply for a pack of free trees or a tree seed growing kit to plant in their grounds, more information is available at www.woodlandtrust.org.uk/hedge

Tree For All has:

Planted nearly 5.5 million trees
Created more than 8,500 acres (3440 hectares) of new native woodland

With the help of:

1,200,000 young people
11,500 schools
150 major partners
Thousands of community groups, local authorities and other organisations

Can trees save the world?



Aren't trees amazing? From the tiniest seed they can grow into the largest of living things, bestowing a wealth of benefits upon the wildlife that clammers, crawls, flits and buzzes among their branches. Trees provide food and shelter, regulate and cleanse water supplies. They offer protection against soil erosion and the worst impacts of wind and tides. They even create wonderlands for us to visit.

All this they do using the barest minimum of raw materials. Sunlight drives photosynthesis, the process by which the sugars that fuel growth are created. And as a tree grows it locks up tonnes of carbon – the stuff we have been blasting into the atmosphere in increasing quantities ever since we first discovered how to dig coal and suck oil out of the ground.

The world's ecosystem depends on trees. Yet on a global scale, deforestation accounts for almost one fifth of all greenhouse gas emissions. That's more than the entire transport sector – every plane, train, automobile, ocean liner, ferry, cargo ship and oil tanker. Deforestation is a double whammy too: when the forests go, so does their ability to draw, or sequester, carbon dioxide out of the atmosphere. Losing trees means both emitting carbon and losing the ability to remove it.

We must all reduce our greenhouse gas emissions, but also accept that some are inevitable. These 'residual' emissions – those that are currently impossible or simply too expensive to avoid – can be 'offset' by reducing emissions elsewhere. Carbon offsetting schemes cover a range of activities, including methane (a far more potent greenhouse gas than carbon dioxide) capture at landfill sites, providing more efficient wood-fuelled cooking stoves to people in developing countries, and investing in renewable energy projects. Most offset schemes concentrate on avoiding emissions: planting trees is unique in that atmospheric carbon is actually sequestered.

Carbon offset schemes have attracted criticism. Some say they do nothing to address the important issue of emissions reduction; others point to the many projects that have failed to deliver their objectives. However, properly regulated and monitored projects can play a role in helping to reduce global emissions of greenhouse gases, and the fact that some past schemes have failed does not necessarily doom future schemes to the same fate.

The Woodland Trust is developing a range of carbon offset products that allow companies and individuals to offset their unavoidable emissions by helping us to plant native trees in the United Kingdom. According to our conservative estimates, planting five trees removes at least one tonne of carbon dioxide from the atmosphere by the time the trees have reached maturity. A hectare of woodland – an area roughly the size of one and a half football pitches – can absorb and store more than 100 tonnes of carbon, equivalent to the average annual emissions of more than thirty cars, or ten people in the UK.

Once planted, the trees need time to grow. We aim to look after our woodlands in perpetuity. Trees planted as part of a carbon offset scheme are therefore assured of permanence. We can't do much to prevent occasional losses, whether through fire, wind, drought, flood or disease, but we plant additional trees as an insurance policy, should the worst happen.

Kate asked Nick, "surely the carbon captured by any one tree isn't permanent – one day it will be released again when the tree dies and decomposes?"

Nick said "it is true that the carbon will be released at some point, but by then the woodland should be in something approaching a carbon balance, whereby emissions through decomposition are cancelled out by new growth. In that sense it's important to see the area of land planted, rather than the number of trees, as the critical factor."

Without funding from the sale of carbon offsets, those trees cannot be planted. Although the money doesn't pay for the full cost of acquiring, preparing and planting the land, then maintaining the trees and managing their early survival, it nevertheless pays for a vital chunk of it. That ensures that the trees are additional – they would not have been planted without that funding. The remaining cost is sought through our many fundraising activities, which include grants from the government and other bodies such as the Heritage Lottery Fund.

Carbon sequestration is not the only benefit that planting trees can bring in the fight against global warming. Because our focus is on planting close to existing ancient woodland, we can provide wildlife with additional habitat into which it can expand as climatic conditions change. The very act of tree planting is symbolic of a human reconnection with the natural world: by engaging people to think about their dependence on trees, so much more can be changed than simply drawing a few tonnes of carbon dioxide out of the sky.

Offsetting our emissions is by definition not the solution to the climate challenges we face, but it can play an important role as the final step in a process of emissions reduction. It should not be seen as a licence to continue with 'business as usual', but as a way to focus attention on the ecological and humanitarian crisis that – after decades of unheeded warning – is now unfolding.

What are the best ways of controlling and reducing greenhouse gas levels?

The Trust ranks these in increasing order of importance:

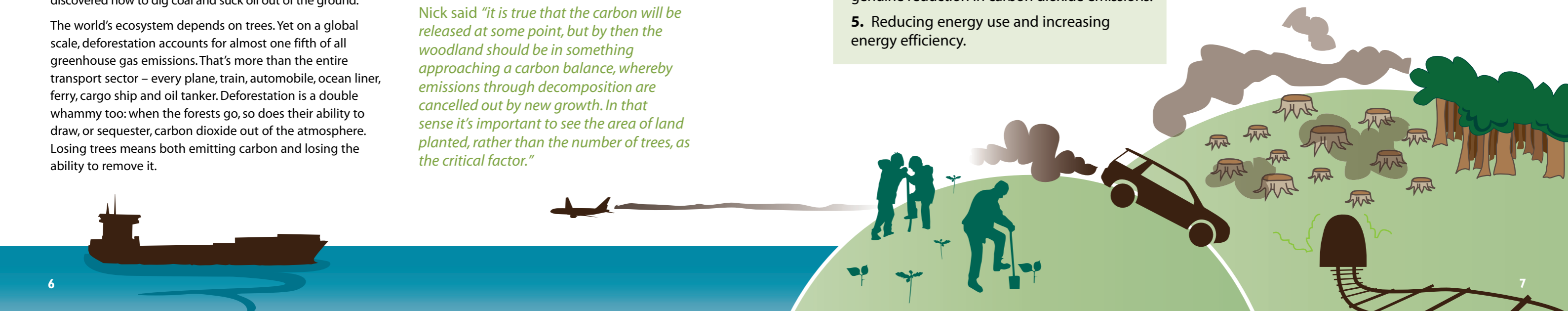
1. Planting new woodland to allow carbon dioxide to be taken up from the atmosphere.
2. Protecting the carbon stored in existing woodland (and other stores such as peat soils).
3. Changing products and materials that use high amounts of energy (eg concrete and aluminium) to those that use less energy.
4. Using renewable energy which achieves genuine reduction in carbon dioxide emissions.
5. Reducing energy use and increasing energy efficiency.



The UK's native woodland is our equivalent of the rainforest. Helping to increase the UK's woodland cover not only provides direct benefits to both ourselves and our wildlife, it also sends a powerful message that we are doing everything we can to restore our damaged ecosystem.

Planting trees gives us a small, hopeful way to put right the wrong. But that hope, just like a planted seed, can in time grow into something of inspirational stature. If there is one thing we can do for the environment right now it is this: plant more trees.

Nick Atkinson is the Woodland Trust's Carbon Manager.



STOP PRESS... Winner of the leaf and flower swatch competition –

**Mr Gordon McConnell
from Derbyshire**



If you weren't the lucky winner, you can call 0800 026 9650 to purchase your very own.



Stuart Leach

Planting trees in your community? Here's £100

Each winter the Woodland Trust encourages community groups throughout the UK to organise and run tree planting events on public land by offering £100 grants. The grant is for the purchase of native broadleaf trees and related materials. This scheme has proved very popular over the past few years and it's a great way for communities to come together and do something positive.

Apply by visiting www.treeforall.org.uk/JoinIn/AsACommunityGroup

If your group doesn't have internet access please call 08452 935 753 for more details and a paper application form.

Help us plant over half a million trees and create the largest new native forest in England

During 2008, the Woodland Trust had an incredible opportunity to purchase around 850 acres of farmland and create England's largest new native forest. The land is located near Sandridge, three miles north of St Albans in Hertfordshire. It contains four small remnants (almost 45 acres) of precious ancient woodland, a habitat type which now sadly makes up only around two per cent of UK land cover.

In total, the Trust needs to raise £8.5 million towards the project, which includes purchasing the land, planting the trees and looking after them for years to come. Pleased with the way fundraising for the site has gone so far, the Trust has acquired the land, but it still needs funds to create and care for the newly named 'Heartwood Forest'.

To donate please call 0845 293 5858 during office hours, visit www.woodlandtrust.org.uk/appeals or send a cheque payable to the Woodland Trust to the following address:

Woodland Trust FREEPOST GM 63/2
Autumn Park, Grantham, Lincs. NG31 6BR

(Quoting 09NATSPRH) Please write this on the back of your cheque.



WTPL/Nicholas Spurling

UK Phenology Network



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