



South West Woodland News

News from the Forestry Commission in the South West Winter 2008

Seasonal greetings from the Forestry Commission and welcome to the second edition of our regional newsletter. Our overall theme this time is climate change, its likely impact on the south west's trees, woods and forests, how we can manage trees and woods to help them cope with the changes (adaptation), and how trees, woods and forests can help reduce the overall emissions of CO₂. A lot is already happening but we all have a part to play. In the following pages we illustrate some of the work that is going on and encourage you to consider how you might help. Nationally our research arm, Forest Research, is establishing a forestry and climate change centre as a principal focus of its work. This will include an assessment of how much carbon trees absorb and how much carbon is saved by using wood for fuel or building. There will undoubtedly be further developments to come! Meanwhile I hope this issue will provide something of interest to you all.

Deborah Elton
Policy Implementation Officer



What future for Westonbirt's maples? How will they cope with our changing climate?

Dr Richard Jinks of Forest Research and **John Weir**, Director of the National Arboretum at Westonbirt, outline the Commission's plans to ensure that the world-famous collection of Japanese maples not only weathers climate changes but thrives in the future.

There are over 350 cultivars of maples (*Acer* spp.) in the national Japanese maple collection at Westonbirt and each autumn they put on a blazing show of colour, admired by many thousands of visitors from all over the world. Income from visitors to Westonbirt is vital to the maintenance of the tree collection as a whole. A key concern is the drier summers predicted to be a significant aspect of our climate in future years – 2007 and 2008 excepted! We are assessing the drought tolerance of the 900 tree species in the collections here. As maples thrive on a constant supply of moisture we are concerned they could be susceptible

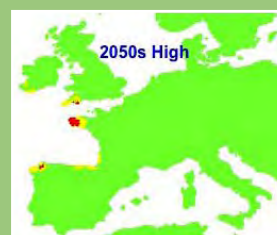
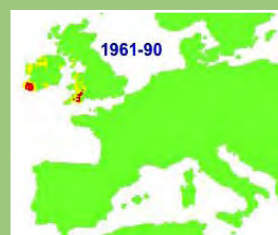
to extended periods of drought. The collection is sited on relatively thin and less moisture retentive soils so we need to start to propagate and relocate the collections now, while considering irrigation on the existing site to enhance soil moisture levels in dry summers.

Thousands of people come to Westonbirt each year to stand among and admire these beautiful trees. They are a national treasure and we are doing everything we possibly can to ensure they remain so for generations to come.

For further information go to www.forestry.gov.uk/forestry/INFDF-7LBMXE

The Westonbirt Magazine, published by Friends of Westonbirt Arboretum, recently carried a series of three linked articles on climate change, by Tim Rollinson, Director General of the Forestry Commission, Dr Mark Broadmeadow, FC England's Climate Change Programme Manager, and John Weir. These are well worth reading. See above web address or www.fowa.org.uk for the full magazine.

How might the South West's climate change?



These maps show areas in Europe which match most closely the climate projected for Canonteign in Devon in the future, based on monthly temperature, daily temperature range and rainfall. This suggests that the south west could experience the climate currently found in Portugal by 2050. Or to put it another way, plants and animals might be required to 'move north' by 40 ft per day to keep up with the anticipated rates of climate change!

Dorset Downs and Cranborne Chase – a changing landscape?

This is one of four pilot projects in different parts of England looking at the impacts of climate change on specific and distinct landscape types. **Simon Bates** of Natural England explains.

With greenhouse gas emissions increasing at 2.8% per year it now seems we will need to adapt for a global average temperature rise of at least 4 °C. This means we can expect the climate of the Dorset Downs & Cranborne Chase to resemble that of present day Portugal in the future. For many, this will be a nice image. However, Portugal has arid chalk landscapes where the impact of drought, floods, and soil erosion are already being felt, and some parts of the country (with a population 20% that of England) experience water shortages every other year. The challenge is to make well-informed decisions now so that we maximise the opportunities and minimise the threats that climate change brings.

For example, in terms of trees and woods, we might well see:

- A decline in beech (presently common in Dorset woods, parks and estates). It is shallow-rooting, does not thrive on dry soils and needs winter frost to start bud growth. Small-leaved lime, by contrast, needs warmth to set seed (20 °C for 20 days) and may increase.



Will the west country's beeches survive the summer droughts that are predicted? Photo: Mark Durk

- An increase in woodland and streamside recreation as people seek shade in the hottest months.

We could respond in the following ways:

- Plant locally native but drought tolerant replacements for existing mature trees eg pedunculate oak, hornbeam and small-leaved lime. In woodlands, we would encourage natural regeneration.
- Pollard trees. This will reduce their susceptibility to storms by reducing the root to crown ratio. The

timber could also be used for fuel.

- Re-establish chalk grassland and/or native woodland next to water courses to improve water retention, reduce downstream flooding, and provide more shade. These and other ideas will be explored with partners over the coming months.

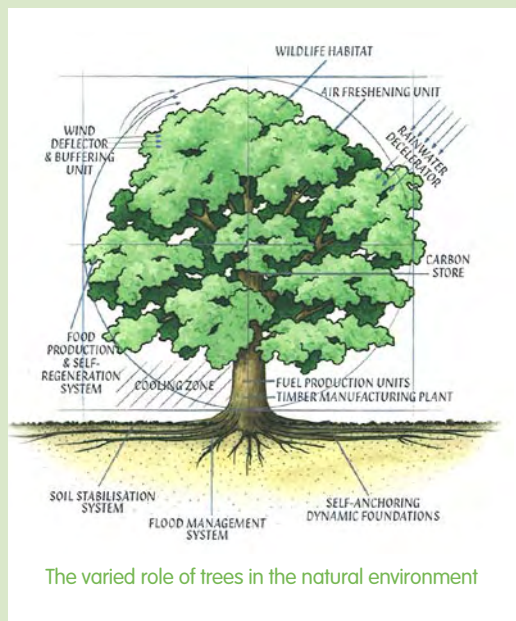
Simon Bates

Climate Change Programme Manager
Simon.Bates@naturalengland.org.uk

A Climate Change Action Plan for the South West

In September the Regional Assembly published the region's first Climate Change Action Plan for the period 2008-10. This aims to provide a shared vision for tackling climate change, with access to a common evidence base and a jointly agreed set of priorities for action both to increase our ability to cope with the impacts of climate change (resilience), and to reduce greenhouse gas emissions. Amongst these priorities the most relevant to the woodland and forestry sector are:

- increasing resilience through effective land management, ie using land wisely, for example preventing soil erosion in sensitive areas, and planting new woods to help reduce the chances of flash floods;
- increasing the production of renewable energy through the use of woodfuel;
- mainstreaming sustainable construction of buildings (including using wood and wood products); and
- promoting the storage of carbon in natural carbon sinks, such as woodland, through new planting and better management. A wide range of bodies including the Forestry Commission, Natural England, the Environment



The varied role of trees in the natural environment

Agency, non-governmental organisations and the Regional Development Agency will be working together to implement the plan. See www.southwest-ra.gov.uk for more information.

How you can help

- Plant trees, and encourage others to do so. National Tree Week marks the start of the planting season. See www.treecouncil.org.uk for this and other useful information. Consider smaller trees, as they establish more quickly, and look after them.
- Find the right tree for the location - check www.right-trees.org.uk for what to plant where in a changing climate.
- Help others to understand that woodland management is 'good for the environment' (cutting down trees is not always bad!) – a well managed woodland stores more CO₂ than a poorly functioning one, and using wood for fuel, building and furniture reduces the CO₂ released compared with many other materials. Contact the Forestry Commission for advice on getting woods back into management.
- Promote the value of large trees in towns as well as rural areas – large trees take decades to grow and provide many benefits to local people and wildlife but are very easily lost.
- Use more wood – preferably produced locally – as fuel, in the home, in building. Look for the FSC logo so that you know that the product is from a sustainably managed woodland.
- Try to reduce your own use of fossil fuels – turn down the heating, turn off the lights!

Further information and links see www.forestry.gov.uk/forestry/INFD-7M5BQD

Supplying locally grown timber to the construction industry

How can we get more of the South West's timber into the construction industry? **Jez Ralph**, Technical Adviser for Woodland Renaissance, a Partnership of businesses concerned with the sustainable economic development of the south west's forests and timber processing industries, explains what is being done to develop the market for locally grown wood.

Over the past three years we have been researching and carrying out a number of investments to stimulate the market for locally grown timber in the construction industry. Increasingly architects, engineers and developers ask what timber is available, either generally or for specific projects. We struggle to supply structural timber and usually supply cladding and exterior joinery. There is very little secondary processing capacity in the south west (or indeed in England) to supply structural timber, ie we have not got the facilities to convert the standard sawn timber from the sawmill into the engineered products required. This includes a lack of kilning, finger jointing, gluing and grading facilities. If we want our timber to fetch the highest value we must develop such facilities, but for successful investment we must also know as much as possible about the timber being grown.

Research

In order to achieve a better understanding of the potential availability of timber in the future, Forest Research is currently measuring the growing resource from 125 random sample plots, with a further 120 to be added next year. This data, combined with detailed information from the owners, will give a full picture of the softwood in the region. This will be fed into modelling software being developed by the Forestry Commission to predict the outturn of timber for the next 20 years.

In addition, a PhD student is researching the properties of locally grown Douglas fir, possibly our most important and under-valued tree species in the Region. This work will match properties such as strength, stiffness, durability and aesthetic consistency against markets and emerging processing technologies. It will also recommend how silvicultural practices can be used to give the characteristics required for the end use of the timber. We are seeking further donations in order to complete this vital study.

New investments

Research is being matched by capital investment in businesses through the SW Regional Development Agency. We have part funded a number of kilning facilities in Wiltshire and Devon, and a machine grading facility in Devon, the only one in the region. This will

allow local timber to be sold into the structural timber market, a big step forward. To make best use of it we are now working with the Forestry Commission to have the machine settings calculated to allow locally grown Douglas fir to be graded along with our other major softwood species, spruce, larch and pine.

To date we have concentrated on softwoods as the timbers in demand from the building industry and because the region grows very good quality conifers. In the future we would like to be able to extend this work to broadleaved species and to stimulate demand for high quality hardwoods such as ash, oak and beech. This will require significantly longer-term investment in research, infrastructure and marketing.



For further information about **Woodland Renaissance** or timber for construction call **Jez Ralph** or **Bob Barrett** on **01752 846400**.
www.silvanus.org.uk/woodland_renaissance.php



Crocadon Sawmill, Cornwall
 Photo: T Gifford

Sustainable homes in the New Forest

In May the New Forest district of the Forestry Commission completed the construction of two three-bedroom timber-framed homes, *Anderwood Cottages*. Built to house two New Forest Commoners whose animals graze adjacent land, they incorporate hay barns and stables. Some of the sustainability features are:

- Local timber – 9 Douglas fir trees from the adjoining forest
- Post and beam frame construction, clad with Structurally Insulated Panels – excellent insulation, and saved some 19 tonnes of CO₂ as compared with using bricks and mortar
- Base heat provided by ground source heat pump; heat exchanger for cooling
- Wood burning stoves for top up heating
- Solar panels for bulk of electricity supply – any surplus fed back to grid
- Plans for rainwater harvesting system for flushing toilets and washing
- Houses meet or exceed Code for Sustainable Homes Level 3.

Roderick James Architects LLP developed 'The Anderwood' design. Construction cost around £370,000 and took seven months. If you'd like to know how you can go about building your own rural home, see the Commission's informative web pages at www.forestry.gov.uk/newforest-ruralhomes. Here you'll find construction guidance, you can source local timber and download four further house designs from Roderick James Architects LLP free of charge. We've also provided an overview of how the cottages were built and a list of the contractors and companies who worked on them. See also www.rjarchitects.co.uk.



Building with Wood seminar
 – see Events on page 4.

Forestry Commission Update

Grants

This year's English Woodland Grant Scheme Prospectus opened for business at the end of May. Uptake has been variable across the grant types, and the position as at 1st December 08 is as follows:

Grant Type	Budget	Funds remaining	Current Status
Creation	£900,000	None	Closed
Management & Assessment	£90,000	£71,000	Open
Regeneration	£282,000	None	Closed
Management	£153,000	£23,000	Open
Improvement Access	£188,000	£127,000	Open
Improvement Biodiversity	£700,000	£261,000	Open
Improvement SSSI	£290,000	£44,000	Open

Planning and Assessment, Management and Improvement Grants will remain open until they are fully committed or **February 28th 2009**, whichever comes first. Significant funds remain for these grants, so please continue to apply! Woodland owners who wish to apply for Creation or Regeneration grants will have another opportunity to do so in the spring of 2009.

Latest **grant availability** can be checked on our website www.forestry.gov.uk/forestry/inf-d-73ubzf or by contacting your Woodland Officer, via the Regional Office.

Policy

The restoration of open habitats from woods and forests in England

The Commission is developing its policy on the restoration of open habitats from woods and forests in England, very relevant to parts of the Region. Consultation on a draft report setting out policy options is due to begin shortly. For more information see www.forestry.gov.uk/england-openhabitats.

Christmas Trees

Are available from the FC at Beechenhurst Lodge, Forest of Dean, Westonbirt Arboretum, Moors Valley Country Park, Dorset, and Haldon Christmas Tree Centre, Exeter.

See www.forestry.gov.uk/christmas for details and festive facts! For other sites see British Christmas Tree Growers' Association at www.christmastree.org.uk



Did you know? 6 million Christmas trees are sold in Britain each year, of which the Commission provides around 100,000. Last year we planted 150,000 new ones; about half were Noble fir, the best species for not dropping needles.

PUBLICATIONS

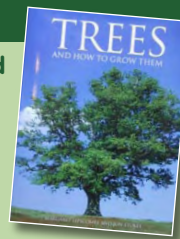
Have you or someone you know recently acquired a wood?

The FC's colour booklet 'So, you own a woodland?' would make a good Christmas present, and it's free!

A readable and practical introduction to woodlands and their management for those new to woodland ownership. Copies available from the Regional Office. Can also be downloaded as a pdf document from the FC website.



Hot off the press is **Trees and How to Grow Them** from the Tree Council. Published to coincide with the seed gathering season, this illustrated hardback gives comprehensive advice on collecting and sowing seeds, planting out saplings and managing young trees – covering more than 80 native and ornamental species. ISBN 9781 8452 5060 7. Check out www.treecouncil.org.uk for more details.



CHRISTMAS EVENTS



Enchanted Christmas

Westonbirt Arboretum, Gloucestershire
Fri, Sat and Sun evenings until 21st December.
Trail open 5 pm-7.30 pm (last entry). Walk through the famous Enchanted Wood and see the National Arboretum lit up at night. Festive music, activities and refreshments, gift shop.
Adults £7 Conc. £6 Child £3.



Christmas Crafts

Haldon Forest Park, Devon
Sunday 21st Dec 10.30 am- 4 pm. Booking not necessary. £1.50- £2 per decoration. Details 01392 932277 or www.ccanw.co.uk

A Festive Birdwatch – Hunt for the Dartford Warbler

Moors Valley Country Park, Dorset
Fri 2nd Jan 10.30 am – 12.30 pm
Booking essential. Tel. 02380 286840
More information at www.forestry.gov.uk/forestry/HCOU-54VENG

FORTHCOMING EVENTS

Building with Wood: Local timber for local housing

11-12th February 2009
Dartington Hall, Devon
This workshop follows on from the successful Building with Wood conference in 2007. Day one offers a choice of field visits based on timber building, wood energy or an introduction to forestry and sawmilling for the construction sector. Day two will focus on the use of timber for structural, non- structural and energy uses in housing. For architects, engineers, developers, builders and those with a professional interest in timber use in construction, the event is being run by the Woodland Renaissance Partnership. For further information and bookings please call 01409 221896.

Water and Woodland

31st March, Exeter
A regional seminar to explore the importance of wet woodland, and its role in flood management, is to be organised by Biodiversity SouthWest and hosted by the Environment Agency. For more information contact Naomi Brookes (naomi.brookes@naturalengland.org.uk).

Contact us...

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Address: Forestry Commission, South West England Region, Mamhead Castle, Mamhead, Exeter EX6 8HD. Tel: 01626 890666. For contact details of Woodland Officers in the south west go to www.forestry.gov.uk/forestry/inf-d-7d9hv8