

Science and Business News November 2004



Forest Research wins English Nature contract for wet woodlands

Forest Research's (FR's) Ecology and Environmental & Human Sciences Divisions have combined forces to win a small contract from English Nature, to conduct the first phase of a review of eco-hydrological guidelines for wet woodland. Part of the contract involves producing a detailed research plan.

FR wins new contract for Scottish habitat networks

Duncan Ray, from FR's Ecology Division, has secured a contract to develop a forest habitat network for Scotland, which will integrate woodland and open ground habitat. The project is funded by Scottish Natural Heritage, FC Scotland and FC GB and will take 3 years to complete. It will use the decision support tool BEETLE (Biological and Environmental Evaluation Tools for Landscape Ecology), which has been developed by FR's Landscape Ecology project team, to assess the location and extent of functionally connected habitat networks on a Geographic Information System (GIS). BEETLE uses a focal species approach to indicate how landscape ecological processes such as species movement, dispersal between patches and patch size thresholds operate. In addition, the model allows an examination of how changes in land-use might affect species that utilise open habitats. It is important to avoid fragmenting open habitats of high ecological value and to improve their functional connectivity.

Commissioners praise progress in habitat networks and CCF

Part of the recent GB Commissioners' recent tour was held in Clocaenog Forest. The visit focused on 'innovations in planning and delivering multipurpose outcomes from a large upland forest'.

Bill Mason (Forest Management Division) presented FR's latest work on the implementation of continuous cover forestry. Kevin Watts and Matt Griffiths (Ecology Division) presented FR's latest work on applying landscape ecology to the planning of forest habitats at both national and at forest scales. Clocaenog Forest is an important wildlife habitat: it is a red squirrel stronghold, one of the best sites in Wales for black grouse and has also been the base for much of FR's butterfly research.

This picture shows the Commissioners' tour in progress in Clocaenog: from left, Trefor Owen (Head of Delivery, FC Wales), Lord Clark (FC Chairman), Clive Thomas (FC Wales Secretariat), Anthony Bosanquet (Non executive FC Commissioner), Bill Mason (FR), Gareth Wardell (Non executive FC Commissioner), David Liddy (FC), Tim Rollinson (FC Director General), Martin Gale (Non executive FC Commissioner), Iwan Parry (FC Wales Planning Support Manager), Richard Carrick (FC) and Matt Griffiths (FR). FR's Chris Jones also attended the meeting.



Strategic Tree Risk Management

Kath Thorpe (Tree Health Division Project Leader for ODPM's Amenity Tree Condition contract) organised a joint ISA and ODPM conference on 27-28 September on Strategic Tree Risk Management. This brought together some of the UK's leading authorities on risk management systems. The meeting, held in Droitwich, Worcestershire, was over subscribed, with more than 120 delegates attending.

The ISA is publishing a conference special edition of their magazine, *Treeline*. If you are interested in obtaining a copy of this, please contact kath.thorpe@forestry.gsi.gov.uk

Forestry Woodchain Conference

125 delegates from around the globe attended the Forestry Woodchain conference organised jointly by FR and BRE in September, which comprised over 30 oral presentations and over 50 poster presentations. A number of FR staff contributed posters and Barry Gardiner (Forest Management Division) chaired a session on 'Grading and Forecasting'. Abstracts of conference presentations and posters are available from Jenny Claridge (Communications Division) at a cost of £20. A CD of the presentations is being compiled and will be available shortly, through the event page still resident on FR's internet site.

Urban Greening team exhibit at EA Conference



FR's Land Regeneration and Urban Greening team exhibited for the first time at the Environment Agency's annual conference, held in Birmingham at the end of October.

Focus on Forest Health

Forest Research's Tree Health Division held four Scottish Forest Health Days in early October. These were well attended by a range of Forest Enterprise (FE) staff. The overall theme of each day was awareness and recording of tree health problems, with emphasis placed on maintaining vigilance for new or unusual forms of damage. This is particularly important with recent concerns about the risks posed by exotic fungal diseases and insect pests, such as *Phytophthora ramorum* and *Dendroctonus micans*. Each day was split into two sessions, with indoor presentations held in the morning, and afternoon field visits to forest sites where tree health matters specific to each district were discussed. Field topics included drought damage; *Heterobasidion annosum*; current *Hylobius* research; *Armillaria* infection in upland conifer restock sites; and decayed/dangerous trees and public safety in recreational areas.

FE staff were reminded that FR's Disease Diagnostic Advisory Service is available to follow up any tree health problems. The DDAS teams at Alice Holt and NRS usually handle a total of around 600 enquiries each year - approximately 500 at Alice Holt and 100 at NRS.

The Alice Holt team is handling all enquiries about Sudden oak death. During the 8-month period to October, around 150 enquiries about *Phytophthora ramorum* (Sudden oak Death) have been received. Some are simply enquiries for further information; other callers are reporting trees with symptoms that could indicate infection with the quarantine pathogen.

FR's principal pathologist, Joan Webber, will be giving presentations on the research being carried out by FR on *Phytophthora ramorum* and the new quarantine pathogen *Phytophthora taxon C*, at a series of meetings being convened by Defra for the public and interested parties. The first meeting will be on 9 November in Cornwall. A second meeting is planned for 30 November in London and this will open with a presentation from Ben Bradshaw (Minister for





Nature Conservation and Fisheries). Joan will also be giving presentations on *P. ramorum* in the USA and in Europe, and also on the impact of this quarantine pathogen to the horticultural industry.

New handbook launched at Scots Pine Rural Development conference.

Scots pine trees, icons of the Highland landscape, were under the spotlight again in October, at a conference organised by FC Scotland to promote the value of Scots pinewoods in rural development. The Aviemore conference attracted 120 delegates. These heard how the Caledonian pinewoods, the subject of intensive conservation and regeneration efforts over the past 40 years, also make a unique contribution to sustainable rural development: not only through timber products, but also through wildlife tourism and the provision of environmental and social benefits to rural communities. FR's Jonathan Humphrey (Ecology Division), Suzanne Martin (Environment and Human Sciences) and Bill Mason (Forest Management Division) were amongst the speakers. Delegates also visited two of FR's experimental sites in nearby Glenmore Forest, where FR's Colin Edwards explained stand management strategies that can be used to manage pinewoods for multiple objectives.

FR, in conjunction with FCS and SNH took the opportunity to launch a new handbook at the conference. Entitled 'Managing the Pinewoods of Scotland', the handbook aims to promote the maintenance and expansion of our existing native pinewoods and appropriate management of pine plantations. It was jointly edited by FR's Bill Mason and Colin Edwards and by SNH's Alan Hampson. Details are available from: <http://www.forestresearch.gov.uk/fr/INFD-659CE9>

Aberfoyle meeting on timber quality and Continuous Cover Forestry (CCF)

60 Scottish forestry sector delegates attended an October meeting on timber quality and CCF, organised by FR and the Scottish Forestry Industry Cluster. The meeting emphasised the need for growing and the processing sectors to collaborate in order to provide consistent supplies of high quality timber. Elspeth MacDonald, Barry Gardiner, Colin Edwards and Bill Mason (all of FR's Forest Management Division) gave presentations at a variety of field sites in FE's Achray forest. The field meeting was complemented by discussions at Callander's sawmill in Falkirk. Attendees included several senior representatives from the Scottish saw milling sector and Scottish Enterprise.

Senior FE staff review Sitka spruce gains

Senior Forest Enterprise staff from England, Scotland and Wales reviewed potential gains in Sitka spruce in growth, stem form, and wood quality which will be available from around 2007/8 as a result of FR's Sitka spruce breeding programme, at an enthusiastically received meeting recently held in Kielder forest. Steve Lee (Forest Management Division) and John Morgan (PSSB, Forestry Commission) organised the meeting in order to discuss the next stages in making improved material available to Forest Enterprise.

Hydrology update

FR's Tom Nisbet recently participated in an FC Scotland meeting on the critical loads approach and also attended an RSPB & FC Highland meeting on peatland restoration and water quality issues at Forsinard. Tom was also involved in a Defra workshop 'Making space for water: developing a new Government strategy for flood and coastal erosion risk management in England'. Tom Nisbet and Huw Thomas held a meeting with Prof. Roger Falconer, Halcrow Professor of Water Management at Cardiff University to discuss hydraulic modelling of floodplain woodland. Huw also attended a FWAG meeting on floodplain woodland in Somerset.

Climate change

FR's Mark Broadmeadow continues to be very busy in meetings with partner organisations, to keep them updated with our understanding of the likely effects of climate change and the adaptation strategies which forestry is proposing to mitigate its worst effects. For example, Mark spoke at the recent Tree Council AGM and to the project steering group of 'Climate change and tourism in the Northwest', at the request of FC England. Mark also gave a radio interview to the digital station 'Passion for the planet'.

BIHIP AGM and Field Day

The British and Irish Hardwoods Improvement Programme (BIHIP) is a collaboration between researchers, private woodland owners and the forest services of UK and Ireland which aims to improve seven hardwood species for timber production. FR is directly involved in the oak, ash, birch and sycamore groups; BIHIP also focuses on cherry, sweet chestnut and walnut.

The recent Field Day, held at Pitlochry, was co-hosted by the Birch Group and FR. It highlighted the potential for quality hardwoods in Scotland and in particular the potential for birch. This is particularly relevant in the light of the announcement by Dr Bob McIntosh at the BIHIP AGM dinner that FC Scotland is considering setting up a working group to find ways to encourage more broadleaf planting for timber. Dr McIntosh expects that FE Scotland will play an important role in delivering this increased broadleaf planting in the future. The Field Day was well attended with a range of organisations and interests represented, spanning nursery production to furniture making.

New and Forthcoming Publications

New

The Special Issue of Hydrology and Earth System Sciences Journal on '*Sustainability of UK upland forestry: contemporary issues for the protection of freshwaters*' has now been published. It includes three papers from FR's Environmental and Human Sciences Division:

- Farmer, R.A. & Nisbet, T.R. 2004 '*An overview of forest management and change with respect to environmental protection in the UK*.' HESS, 8(3), 279-285.
- Broadmeadow, S. & Nisbet, T.R. 2004 '*The effects of riparian forest management on the freshwater environment: a literature review of best management practice*.' HESS, 8(3), 286-305.
- Neal, C., Ormerod, S.J., Langan, S.J., Nisbet, T.R. & Roberts, J. 2004 '*Sustainability of UK forestry: contemporary issues for the protection of freshwaters, a conclusion*.' HESS, 8(3), 589-595.

FCIN62: *Forest Condition 2003* by Steve Hendry, Roger Boswell and John Proudfoot. OCT 2004.

The Forestry Woodchain: quantifying and forecasting quality from forest to end product.

Abstracts of presentations and posters prepared for the Forestry Woodchain Conference at Heriot-Watt University, Edinburgh, 28-30 September 2004. Edited by Jenny Claridge and Tim Randle. FR publication.

Land Regeneration and Urban Greening. Promotional Brochure incorporating eight leaflets on individual topics and research case studies, such as Urban regeneration, Waste utilisation, Environmental impacts, Sustainable energy. FR publication.





Fomes Root Rot of Pine: Forestry Commission Research in Thetford Chase, compiled by Brian Greig from his research work in Pathology Branch between the 1960s and 1990s. FR in-house publication.

Forthcoming (Nov/Dec)

A Sort of Magical Place: people's experiences of woodlands in northwest and southeast England by Liz O'Brien. FR publication.

Practice Guide: *Creating New Woodlands by Direct Seeding* by Ian Willoughby, Richard Jinks, Peter Gosling and Gary Kerr. FC publication.

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