

Forestry and Wood Update

NOVEMBER 2004 - Volume 4 Number 11

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COFORD’s activities are funded by the Irish Government under the National Development Plan, 2000-2006.

# COFORD launches two new publications

## Forestry in Ireland – A Concise History

On 2 November 2004, the Minister of State for Forestry, John Browne TD, launched the COFORD publication: *Forestry in Ireland – A Concise History*. The book was written by Niall OCarroll, a former chief inspector of the Forest Service.

Speaking at the launch in Avondale House, Co Wicklow, Minister Browne referred to achievements of Irish forestry over the past century, in particular the planting of million acres of new forest by 1991, from a target set back in 1948.

He quoted from the book “The history of Irish forests consists of a steady decline lasting many centuries followed by a sharp upswing around the beginning of the twentieth century”. This turn around came from the vision and commitment far-seeing individuals, such as the late Sean MacBride, who were the advocates for afforestation at a time when there were many competing uses for land. “Since that time forestry has become accepted as a land use in its own right,” the Minister said.

Also speaking at the launch the COFORD chairman, David Nevins, said: “Above all this book is a record of achievement by those involved in forestry over the past hundreds of years but particularly in the twentieth century, when we began the process of regaining our forest cover. It is also a useful signpost to the future and how we might fashion our thoughts and policies in the decades ahead.”

Copies of this book are available from COFORD, at a cost of €20.00 plus post and packaging.

## Trees, Forests and the Law in Ireland

Another COFORD publication, *Trees, Forests and the Law in Ireland,* will be launched on 4 November 2004.

Damian McHugh, the principal author, is well-known in the areas of libel law and journalism. He has written many successful publications in this and related areas, aimed at the legal profession and the lay person. Dr Gerhardt Gallagher, co-author, is one of the foremost forestry experts in Ireland, with a unique insight into the many policy-related and legislative issues that impact on the forestry sector in Ireland.

H.M. FitzPatrick’s work *Trees and the Law* has for many years guided forestry practitioners and legal experts in dealing with litigation in relation to trees and forests. However, since its publication in 1985 case law has developed in Ireland and in a number of other jurisdictions and the scale and impact of the forestry sector, at both national and international levels have greatly increased. It was for this reason that COFORD decided to produce *Trees, Forests and the Law in Ireland*. While the book is aimed primarily at forestry and legal practitioners, members of the public will find much between its covers that is of interest and relevance.

Copies of this book are available from COFORD, at a cost of €20.00 plus post and packaging.

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# Protecting Ireland's Forests - the threat from deer and grey squirrel

COFORD will hold a seminar on the management of forest mammals, to be held on 26 November 2004 at the Tullamore Court Hotel, Co Offaly. [Download information leaflet and registration form here](http://www.coford.ie/newsandevents/MammalsConference.pdf).

Over the past twenty years more than 200,000 ha of former agricultural land have been afforested in Ireland. Deer and grey squirrel have colonized some of these areas to such an extent that they are causing serious economic damage through bark stripping and browsing. Broadleaves are particularly vulnerable, so much so that the future selection of species such as beech and sycamore is open to question.
Evidence from research as well as experience on the ground show that the population and distribution of both grey squirrel and deer are increasing in extent, as is the level of damage. At present there is no integrated control policy to reduce numbers to a sustainable level.

This seminar will explore the issues surrounding the control and management of these problem mammals. In addition to the delivery of a number of informative papers, the seminar aims to address the issue of integrated pest management (IPM) plans. What is certain is that individual forest owners will have no effect on deer or grey squirrel populations if they act in isolation. IPM requires close collaboration between landowners, state departments and local community groups.

The objectives of the seminar are to:

* outline best management practice for deer and grey squirrel control, and
* discuss policy and practice in relation to deer management and selection of broadleaves in face of the grey squirrel threat.

The programme includes the following presentations:

## Deer management and control - policy and practice

* Introduced mammals – ecological aspects as guidance for management and control by Dr Sean Rooney[[1]](#footnote-1), Central Fisheries Board
* The grower’s perspective – implications of deer damage for sustainable forestry by John Jackson, Chairman Farm Forestry Section, Irish Farmers’ Association
* Deer management - integrated control policies and practices by Barry Coad, Game and Deer Manager, Coillte
* National policy development in relation to integrated deer management by Sean Casey, Divisional Manager, National Parks and Wildlife Service
* Approaches to deer management and control in Northern Ireland by John McCurdy, Deer Recorder, Northern Ireland Deer Society
* PANEL DISCUSSION: Putting deer management policies and practices in place – how, by whom and when?

## Grey squirrel management and control - policy and practice

* How control works or doesn’t work - the UK experience by Charles Dutton, European Squirrel Initiative
* Irish squirrel population dynamics - the consequences for best control practice by Alan Poole, Department of Zoology, NUI Galway
* Grey squirrels and broadleaves - not a silvicultural mixture! by Dr Michael Carey, Forestry and Management Consultant
* PANEL DISCUSSION: Silviculture and species selection in light of the grey squirrel - time for change?

This is a recognised event under the Society of Irish Foresters’ Programme of Continuous Professional Development (CPD), equivalent to 6 points.

Attendance at the seminar (including refreshments and lunch) is subject to a registration fee of €40.00 per person. Places will be allocated on a first-come, first-served basis.
Please contact COFORD to reserve your place. Email: info@coford.ie or tel: 01-2130725.

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# Hardwood Matters

In the previous issue of this newsletter, it was noted that COFORD would be publishing a free catalogue for advertising hardwood stands and/or logs in an attempt to increase grower’s knowledge of what hardwood merchants require in terms of quality, species and volumes. This catalogue will feature both *for sale* and *wanted* sections and aims to bring the buyers and producers together in a more coherent manner. The first catalogue in this series was originally scheduled for 15 October 2004, however, because we are continuing to receive material we have set a new date for 1 December 2004. Should you have any material for inclusion please forward it to COFORD as soon as possible.

This catalogue, which will be called ‘*Hardwood Matters*’, will be issued to a wide audience including timber merchants, hardwood sawmills, timber growers and forestry professional.

A standard form must be completed by all those wishing to advertise their hardwoods. This form can be downloaded from [www.coford.ie/hardwoodmatters/default.html](http://www.coford.ie/hardwoodmatters/default.html) or can be obtained from the COFORD office by calling 01-2130725.

We encourage all growers and buyers to use this catalogue to build up a greater forum for discussing hardwood matters! Any comments on this initiative should be addressed to John Fennessy at the COFORD office, tel: 01-2130725 or email john.fennessy@coford.ie.

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# Carbon Corner

## Improved estimates of Irish afforestation sink under Article 3.3 of the Kyoto Protocol

Results from the COFORD-funded CARBiFOR project have shown the biomass expansion factors (ratio of above and below tree biomass to commercial wood volume) used for reporting carbon stocks have been too low, particularly for young crops. As a result new estimates of carbon stocks and carbon stock changes have been made for afforestation since 1990, which qualifies under Article 3.3 of the Kyoto Protocol. Removal of carbon dioxide from the atmosphere by these forests, during the period 2008-2012, qualifies for the issuance of removal units (RMUs) which can be used to comply with overall emission targets under the Protocol.

 The above table[[2]](#footnote-2) (derived from the COFORD CARBWARE model) shows that, on average, sequestration could reach up to 2 million tonnes of carbon dioxide per annum in new forests planted since 1990 (and projecting a rate of 20,000 ha per annum to the end of 2012). This figure ignores the additional amounts of carbon that are stored in the forest floor.

Putting these figures into perspective, the overall reduction in emissions signalled in the National Climate Change Strategy was around 15.4 million tonnes of carbon dioxide per year. Forests can therefore contribute up 13% of this reduction.

Costs of complying with Kyoto will be a function of the cost of purchasing credits on the international market. Present indications are that the price of carbon dioxide will be around €10/tonne. Kyoto compliant forests could therefore can save the Irish government over €100 million in purchases over the five years of the first Kyoto commitment period (2008-2012).

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# BIHIP Update

Forty delegates from Britain and Ireland attended the British and Irish Hardwood Improvement Programme (BIHIP) Annual General Meeting, Field Day and Management Committee Meeting held in Pitlochry, Scotland, on 21 and 22 October 2004. The following issues were discussed:

* Funding – Woodland Heritage funding of £2,000 each was awarded to the ash, oak and walnut groups. Forestry Commission and Northern Ireland Forest Service funding amounting to £3,000 each was awarded to the ash, birch and oak groups, while COFORD agreed to provide support of €5,000 as start up funding to the sycamore group over the next three years.
* International Events- A report was presented on the outcome of the International Hardwood Improvement Conference, organised by BIHIP in co-operation with the Royal Agricultural Society of England and the Royal Forestry Society of England, Wales and Northern Ireland. The conference *Better Trees, Better Profits* was held at Stonley Park in Warwickshire on 4 March 2004. Some of the scientific papers presented at the conference as well as additional papers on hardwoods are to be published in a special issue of *Forestry* in March 2005.
* Future of BIHIP- The Chairman Prof. J Burley presented a discussion paper entitled *Thoughts on BIHIP strategy – where we are and where we are going*. It was agreed that the discussion generated by this paper should continue and should be debated at the next Management Committee meeting.
* The British and Irish Hardwood Trust – This Trust was successfully registered as a UK charity with the objective to gain financial support for funding the activities of BIHIP. Moves are underway to achieve a similar tax-relief status in Ireland.
* Election of Honorary Chairman, Secretary and Treasurer – The Chairman, Prof. J. Burley, and Secretary, Dr G. Hemery, completed their terms of office under the BIHIP Constitution. Dr P. Savill and Dr J. Hubert will take over the roles of Chairman and Secretary, respectively. Mr J. Davis continues as Treasurer.

The outdoor programme was organised by Forest Research and the BIHIP birch group. It concentrated mainly on the original work of the group, showing how the programme had developed and the progress made to date.

The birch group is engaged in carrying out an improvement programme for a number of regions in Britain and Ireland where birch is potentially an important forest tree. The programme is based on a regional approach, to ensure that future improved planting stock is well-adapted to the planting sites where it is to be used. The first region where this approach is being tested is the Tayside, Angus and Fife region.

A visit was made to a stand of birch where a number of plus trees had been identified. Methods for plus tree selection were described using a scoring system. Plus trees are generally selected on the basis of their superior stem form, crown characteristics and their size and stature in the stand. The programme records show that most plus trees are selected at lower elevations as plus trees do not occur on more upland sites. In plus tree selection detailed stand and site data are also recorded. A total of 45 plus trees have been selected to date in this region. These will form the basis of an indoor seed orchard in the near future.

The group has also made seed collections covering a number of different provenances in the north of England and Scotland and a visit was made to one of these trials at Craigvinean forest. This is one of a series of such trials, one of which is established in Ireland at a Coillte site in Ballynoe Forest, Co Cork.

COFORD is continuing to support an active improvement programme of Irish birch and earlier this year a full report on the project was published – *The Improvement of Irish Birch – Phase 1: Selection of individuals and populations.* Copies of this report are available from COFORD or can be downloaded from <http://www.coford.ie/reports/Birch.pdf>.

For further information please visit the BIHIP web site at [www.bihip.com](http://www.bihip.com) or contact John Fennessy at COFORD (email: john.fennessy@coford.ie).

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# A brief overview of Austrian forests

The Irish Natural Forestry Foundation is currently developing a demonstration farm woodland at the Manch Estate close to Dunmanway in Co Cork. This project commenced in early 2004 with the establishment of 20 ha of diverse broadleaved woodland in line with a plan submitted to and approved by the Forest Service in March 2004. Complementing this development is a Native Woodland project, covering 19 ha, which is planned for development later this year.

Richard Ramsauer, Chairman of the Irish Natural Forestry Foundation and former head of the Austrian Forest Service as well as a private forest owner in Austria, recently invited a group of foresters and environmentalists to visit Austria and experience first hand the approach of the Austrian Federal Forests (*Osterreichische Bundesforste AG*) and other forestry organisations to the establishment and management of broadleaved woodlands.Austria is a densely forested country with 52% of its land area covered by forests. Due to the predominantly mountainous terrain, the proportion of conifers is high at about 77%, while broadleaved tree species account for 23%.

The Austrian Federal Forests own approximately 10% of the total land area. *Bundesforste*, originally founded in 1925, was reconstituted as a publicly owned joint-stock company in 1997. The Republic of Austria is the sole shareholder and owner of all Austrian Federal Forest land.

Beech is one of the most important broadleaved species in Austria accounting for 9.8% of the land area and is the most important hardwood economically, with an annual harvest of 1.6 million cubic metres per year. . With the exception of the Central Alps, beech is found in most of the other areas of Austria, although at highly variable stocking densities. Less than 2% of the wood is of veneer quality. On average beech makes €75/m3, while lower quality wood for pulp and paper makes about €30/m3. In the past, beech forests have been mainly harvested for fuel wood. This has sometimes resulted in the conversion of beech forests to coniferous stands. More recently, the demand for beech lumber and fuel wood has increased and this has resulted in the establishment of beech forests. Beech is predominantly regenerated naturally using shelterwood systems. Rotation length is usually 80 to 100 years with final stocking varying from 80-100 trees/ha.

Pedunculate and sessile oak are the most commonly occurring oaks species but only account 2.2% of the total forest area, with an annual harvest of 450,000 cubic metres per year , about 2.3% of the total wood supply. On average oak makes €100/m3, while prices for veneer logs can range between from €1,000-5,000/m3). Oak stands are usually managed in high forests, but the coppice-with-standards still plays an important role locally. Oak is usually regenerated artificially.

A number of forests areas were visited:

1. Forest Weinzierlwald is managed by the Austrian Federal Forests and located close to the town of Wieselburg, lower Austria. Here the natural (climax) woodland is oak with an understorey of hornbeam on the lower slopes, replaced with beech on higher ground. In Austria hornbeam is an important understorey component of pedunculate oak where it prevents the occurrence of epicormic shoots. This type of mixture was seen on a number of occasions. In the past much of the broadleaves in the region have been replaced with Norway spruce. However, in 1975 after extensive storm damaged many of the pure conifer stands, afforestation with hardwoods (mainly oak and beech) commenced. In more recent times there were extreme outbreaks of bark beetle damage, especially in the spruce. Today broadleaves make up 60% of the forest. The objective of management in is to achieve stable, valuable broadleaved forest.
2. The forest of Hohenau is 1,527 ha in extent but the extent of the flood plain forest which was visited, covers an area of 560 ha and is located on the border between Austria and Slovakia on the Morava River. This forest is part of the forest estate of the Liechtenstein Family with a total forest holding of 3,556 ha. The main species seen in this property was ash, especially narrow- leaved ash (*Fraxinus angustifolia*), which accounts for 71% of the total area. Oak (*Quercus robur*) was the next most important species comprising 14% of the area with the balance comprised of hornbeam and beech, birch, elm, sycamore, alder, aspen and lime. .
3. The forests of Leithaberg West are in the Leithaberg Mountains, a range of hills between the “Wiener Brecken” lowland and the Hungarian lowland, close to the Hungarian border. Here Esterhazy Betriebe GmbH is the largest forestry company in the province of Burgerland and one of the largest private forestry companies in Austria, managing 22,500 ha of forest. The main species found were: hornbeam - 20%; oak (*Q. robur and* *Q. petraea*) 21%; Turkey oak (*Q. cerris*) – 17%; beech 11%; maple species 3%; ash 2%; other broadleaves 19% and softwoods 2%. Much of the woodland here has been managed as coppice but the target now is to change from coppice to high forest by cutting out the coppice and through natural and artificial regeneration.
4. The forest Wienerwald is located west of Vienna and is part of the forest area popularly known as the Viennese Woods and is managed by the Austrian Federal Forests. The forests are predominantly beech managed on a rotation of 80–160 years. Much of the beech is regenerated naturally using a shelterwood system. utilising mast years. The last mast year was in 2002.

While the visit to the Austrian forests proved interesting and very thought provoking, it should be remembered that the soils and climate in Ireland are very different to that of Austria. However, many of the problems encountered in Ireland are also found in Austria - seed sources of uncertain origin and some of poor quality, problems with deer and other wildlife and the damage that they inflict on broadleaved woodlands, traditional silvicultural systems such as coppice or coppice with standards and the particularly long rotations for broadleaved woodland production from 80 to 160 years.

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# Conference: Management of Recovered Wood

## Strategies Towards a Higher Technical, Economic and Environmental Standard in Europe

This conference will be organised by COST Action E31, held from 29 September to 1 October 2005 in Bordeaux, France.

The European Union has set a target to double the share of renewable energy in the European primary energy supply from a level of 6% in 1997 to 12% by 2010. The technical, economic and structural conditions for the use of biomass for energy generation will enable biomass to contribute significantly to this aim. In the Kyoto process the European Union has committed to reduce European greenhouse gas emissions (CO2, CH4, N2O etc.) by 8% from the 1990 level by the year 2010. Energy generated from biomass is able to substitute for fossil fuels used for electricity, heat supply and transportation fuel. One of the most important sources of biomass – in addition to forestry and energy crops - derives from recovered wood at the end of its life (e.g. demolition wood, timber from building sites and the commercial sector).

The two most important management options for recovered wood are:

* Using recovered wood as a material (reuse or recycling as secondary raw material)
* Combustion of recovered wood for energy use (energy generation)

The main objectives of this conference are

* Market aspects of recovered wood
* Characteristics and standardisation of recovered wood
* Strategies for increasing the amount of recovered wood
* Design aspects for wooden products for a sustainable end-of use strategy

The aim of this COST Action E31 Management of Recovered Wood is the improvement of the management of recovered wood towards a higher common technical, economic and environmental standard. The second conference of this action will focus on strategic approaches to achieve better management of recovered wood in Europe.

For further information about Cost Action E31 see <http://www.ctib-tchn.be/coste31>

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# Flood control

***Source: The Economist, 23 October 2004, p 77.***

Not even in Spain does the rain fall mainly on the plain. The world over, it falls mainly in the hills and drains away into streams and rivers. But when it rains heavily in the hills, the surge of water that results can overflow riverbanks on low-lying land downstream. With northern Europe’s climate likely to become wetter as a result of global warming, the European Environment Agency is warning of more, and worse, such flooding to come.

Protecting towns and cities on these lowland floodplains is an expensive business. In Britain alone, over £400m a year is spent defending the most vulnerable communities from river and coastal flooding using embankments and other structures. A better and more cost-effective approach may be to try to slow the rate at which rainwater falling in the hills drains into rivers in the first place, thereby reducing damaging floodwater surges.

That vegetation slows down the rate at which water drains into rivers is commonplace. But data on how effectively different sorts of vegetation, other than mature forests, do this are surprisingly sparse. However, Howard Wheater, of Imperial College, London, and his colleagues are attempting to change that. And their early results suggest that managing land to control drainage could yield rapid dividends.

Dr Wheater and his colleagues have been working in the hilly catchment of the Severn River in mid-Wales. This is sheep country, and on sloping, heavily grazed turf the researchers found that the “soak-in” rate was close to zero. In other words, all of the rain ran quickly off the surface into nearby streams. No surprise there. In less heavily grazed pasture, the soak-in rate averaged 10 cm an hour; good, but not spectacular. However, in areas planted with young, broadleaved trees – and with no livestock grazing – it was up to an impressive 80 cm an hour when the trees were only seven years old. Indeed, even two-year-old trees made a perceptible difference.

This research suggests that planting trees, and even converting billiard table-like swards of closely cropped pasture back to bushy moorland, could slow the rate of run-off into streams and rivers much more rapidly than previously suspected. And it would, as a bonus, boost the biodiversity of currently desolate hill land.

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1. Principal author of COFORD publication *Forest Mammals - Management and Control.* [↑](#footnote-ref-1)
2. Carbon is converted to carbon dioxide by multiplying by the dividing of their atomic weights (12/44). [↑](#footnote-ref-2)