

Publications, research programmes, contracts and people

Forestry Commission technical publications

Publications by Forest Research staff

Major research programmes undertaken by Forest Research

Research contracts awarded by Forest Research

Forest Research people

Woodland carbon exchange:
monitoring part of an ongoing
environmental research
programme



New publication: inventory
report for Wales



Acorn collection in
the New Forest,
Hampshire, featured
in Practice Note 12



Forestry Commission technical publications

The following titles were published during the year ending 31 March 2003.

Reports and Plans

Forest Research annual report and accounts 2001–2002 (£18.50)

Forest Research corporate plan 2002–2005 (free)

Miscellaneous

Health and well-being: trees, woodlands and natural spaces

Paul Tabbush and Liz O'Brien (£10)

The various series of technical publications listed below are published for the Forestry Commission by Policy and Practice Division. New titles are listed here as authors are predominantly from Forest Research. Authors outwith the Agency are indicated by an asterisk.

Information Notes (free)

- 42 *Timber cladding in Scotland*
Ivor Davies*, Bruce Walker* and James Pendlebury*
- 43 *The supply of homegrown timber products to the building industry in Scotland*
Una Lee*
- 44 *The opportunities for woodland on contaminated land*
Tony Hutchings
- 45 *Monitoring the transformation of even-aged stands to continuous cover management*
Gary Kerr, Bill Mason, Roger Boswell and Arne Pommerening*
- 46 *Forest condition 2001*
Steven Hendry, Roger Boswell and John Proudfoot
- 47 *Nutrition of Sitka spruce on upland restock sites in northern Britain*
Stephen A. Smith and Helen McKay
- 7 *Poplar rust and its recent impact in Great Britain* (revised edition)
David Lonsdale and Paul Tabbush

Practice Notes (free)

- 12 *Handling and storing acorns & chestnuts and sycamore fruits*
Peter Gosling
- 7 *Establishment and management of short rotation coppice* (revised edition)
Ian Tubby and Alan Armstrong

Technical Notes (free)

- 1 *Harvesting machine census 1999 & 2001*
Colin Saunders and Bill J. Jones
- 2 *Planning controlled burning operations in forestry*
Ian Murgatroyd
- 3 *Forest and moorland fire suppression*
Ian Murgatroyd
- 4 *Burning forest residues*
Bill Jones

Technical Paper

- 33 *Applying the Ecological Site Classification in the Lowlands: a case study of the New Forest Inclosures*
Graham Pyatt, Jonathan Spencer*, Louise Hutchby*, Stefania Davani*, Jane Fletcher and Karen Purdy

Field Guide

The identification of soils for forestry
Fiona Kennedy (£17)

Inventory Reports

National inventory of woodland & trees for Wales (£15)
National inventory of woodland & trees for Wales.
Wallchart (free)

All Reports for England, Scotland and Wales at country, regional and county level are available on line in PDF format.

Website: www.forestry.gov.uk/inventory

Publications by Forest Research staff

Anderson, A.R. and Harding, K.I.M. (2002)

The age structure of Scots pine bog woodlands. *Scottish Forestry* **56**(3), 135–143.

[Birkinshaw, S.,] Nisbet, T., [Parkin, G., Calder, I.R. and Reid, I.] (2002)

Modelling the effect of a Corsican pine forest on nitrate pollution. Third international conference on water resources and environment research (ICWRER) July 2002, Dresden, Germany.

Broadmeadow, M. (2002)

What does climate change mean for British forestry? Continuing the theme of environmental awareness in forestry, Mark Broadmeadow of Environmental Research Branch at Forest Research discusses the implications of climate change for British forestry. *Forestry & British Timber* **31**(7), 19–22,24.

Broadmeadow, S. and Nisbet, T. (2002)

The effect of riparian forest management on the freshwater environment. Final report, October 2002. Forestry Commission, Forest Research & SNIFFER Scotland and Northern Ireland Forum for Environmental Research. SR(02)06F. Forestry Commission, Forest Research, Farnham, Surrey.

Bruchert, F. and Gardiner, B. (2000)

Wind exposure effects on the mechanical properties of Sitka spruce (*Picea sitchensis* (Bong.) Carr.). In: *Plant biomechanics 2000. Proceedings of the 3rd plant biomechanics conference, Freiburg-Badenweiler, 27 August–2 September 2000*, eds H.-C. Spatz and T. Speck. Georg Thieme Verlag, Stuttgart, Germany and New York, 403–412.

[Calder, I.R., Reid, I.,] Nisbet, T., [Armstrong, A., Green, J.C. and Parkin, G.] (2002)

Study of the potential impacts on water resources of proposed afforestation.
http://www.defra.gov.uk/science/project_data/DocumentLibrary/WT01008/WT01008_675_ABS.pdf

Casella, E. and [Ceulemans, R.] (2002)

Spatial distribution of leaf morphological and physiological characteristics in relation to local radiation regime within the canopies of 3-year-old *Populus* clones in coppice culture. *Tree Physiology* **22**(18), 1277–1288.

[Convention on Long-Range Transboundary Air Pollution; International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests & European Union Scheme on the Protection of Forests Against Atmospheric Pollution], with contribution from Durrant, D. (2002).

Forest condition in Europe: results of the 2001 large-scale survey. 2002 Technical Report. Economic Commission for Europe; European Commission & Germany, Bundesforschungsanstalt für Forst- und Holzwirtschaft [Federal Research Centre for Forestry and Forest Products]. BFH, Hamburg, Germany.

Cottrell, J.E., [Munro, R.C.,] Tabbener, H.E., Milner, A.D., Forrest, G.I. and [Lowe, A.J.] (2003)

Comparison of fine-scale genetic structure using nuclear microsatellites with two British oakwoods differing in population history. *Forest Ecology and Management* **176**(1–3), 287–303.

Cottrell, J.E., Tabbener, H.E. and Forrest, G.I. (2002)

Distribution of variation in British black poplar: the role of human management. In: *EUROPOP Populus nigra L. Genetic diversity in river populations of European black poplar: implications for riparian eco-system management. Proceedings of an international symposium in Szekszárd, Hungary, 16–20 May 2001*, eds B. C. van Dam and S. Bordács. Csizsár Nyomda, Budapest, Hungary, 73–84.

Cundall, E.P. (2002)

Ash: choosing a seed-source. When planting ash, the choice of seed-source is important, says Dr Ned Cundall, Project Leader for the Improvement of Broadleaves for Forest Research at their Northern Research Station. *Forestry & British Timber* **31**(10), 18–22.

Foot, K. and [Spoor, G.] (2003)

Breaking restored ground: ripping really works! *Mineral Planning* **94**, 6–9.

Forest Research, Technical Development Branch (2003)

Safe fitting of bandtracks to forest machines. *Forest Machine Journal* **9**(3), 42–43.

Forestry Commission; [Sangster, M.] and Moffat, A.J. (2003)

Land renewal. Sustainable forestry in brief. Factsheet Series. Forestry Commission, Edinburgh. (On internet site: www.forestry.gov.uk)

Gibbs, J.N., Greig, B.J.W. and Pratt, J.E. (2002)

Fomes root rot in Thetford Forest, East Anglia: past, present and future. *Forestry* **75**(2), 191–202.

[Gurnell, J.] and Mayle, B.A. (2003)

Ecological impacts of the alien grey squirrel (*Sciurus carolinensis*) in Britain. In: *Conference proceedings. The return of the native: the reintroduction of native species back into their natural habitat*, Hadlow College, Tonbridge, Kent, 24 February 2001; MammAliens: a one-day conference on the problems caused by non-native British mammals, University of Greenwich, Chatham, Kent, 23 February 2002, ed. C. P. Bowen. People's Trust for Endangered Species; Mammals Trust UK, London, 40–45.

Hale, S.E. and Edwards, C. (2002)

Comparison of film and digital hemispherical photography across a wide range of canopy densities. *Agricultural and Forest Meteorology* **112**(1), 51–56.

[Hall J. et al. (33 authors)]: M. Griffiths and M. Broadmeadow (2003)

Status of UK critical loads – critical loads methods, data and maps. Centre for Ecology and Hydrology, Huntingdon. www.critloads.ceh.ac.uk/reports.htm

Harmer, R. (2002)

Creation of woodlands by natural colonisation in lowland England. In: *Restocking of storm-felled forests: new approaches. Proceedings of an international workshop in Denmark, March 2001*, ed. A. Brunner. Danish Forest and Landscape Research Institute. Report 12. Danish Centre for Forest, Landscape and Planning, Horsholm, Denmark, 109–111.

Harmer, R. (2002)

Restocking after storm damage from an English perspective. In: *Restocking of storm-felled forests: new approaches. Proceedings of an international workshop in Denmark, March 2001*, ed. A. Brunner. Danish Forest and Landscape Research Institute. Report 12. Danish Centre for Forest, Landscape and Planning, Horsholm, Denmark, 47–52.

Harmer, R. and Robertson, M. (2002)

Management of standards in hazel coppice. *Quarterly Journal of Forestry* **96**(4), 259–264.

[Hemery, G.E., Savill, P.S.] and Kerr, G. (2003)

Formative pruning. Woodland Heritage, Haslemere, Surrey.

Hendry, S.J., [Boddy, L.] and Lonsdale, D. (2002)

Abiotic variables effect differential expression of latent infections in beech (*Fagus sylvatica*). *New Phytologist* **155**(3), 449–460.

Humphrey, J.W. (2002)

Deadwood – alive and well in plantation forests! *ICF News*, Issue 2/2002, 10.

Humphrey, J.W., [Davey, S.], Peace, A.J., Ferris, R. and [Harding, K.] (2002)

Lichens and bryophyte communities of planted and semi-natural forests in Britain: the influence of site type, stand structure and deadwood. *Biological Conservation* **107**(2), 165–180.

Humphrey, J.W., Ferris, R., Jukes, M.R. and Peace, A.J. (2002)

The potential contribution of conifer plantations to the UK Biodiversity Action Plan. *Botanical Journal of Scotland* **54**(1), 49–62.

Hutchings, T.R. (2002)

The establishment of trees on contaminated land. *Arboricultural Journal* **26**(4), 359–376.

Hutchings, T.R. and [Juvara, M.] (2003)

The development of an indicator methodology to determine the plant availability of potentially toxic elements. Proceedings of the CL:AIRE Annual Project Conference, 31 March 2003, University College, London.

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Greening brownfield sites: a new and more sustainable approach to landscape on previously developed land. *Sustain' Built Environment Matters* **4**(02), 44.

[Ingram, D.S.] and Brasier, C.M. (2002)

Obituary. David Farnie Robertson (1923–1999): a memoir. *Mycological Research* **106**(3), 380–384.

[Jones, A.T., Gray, H.] and Ray, D. (2002)

Strategic application of modelling forest potential: calculating local targets for Native Woodland Habitat Action Plans in Scotland. *Scottish Forestry* **56**(2), 81–89.

Jukes, M.R., Ferris, R. and Peace, A.J. (2002)

The influence of stand structure and composition on diversity of canopy Coleoptera in coniferous plantations in Britain. *Forest Ecology and Management* **163**(1–3), 27–41.

Kerr, G. (2002)

The potential for sustainable management of semi-natural woodlands in southern England using uneven-aged silviculture. *Forestry* **75**(3), 227–243.

[Korhonen, R., Pingoud, K., Savolainen, I.] and Matthews, R. (2002)

The role of carbon sequestration and the tonne-year approach in fulfilling the objective of climate convention. *Environmental Science and Policy* **5**(6), 429–441.

[Kremer, A., Dupouey, J.L., Deans, J.D.], Cottrell, J., [Csaikl, U., Finkeldey, R., Espinel, S., Jensen, J., Kleinschmit, J., van Dam, B., Ducouso, A.], Forrest, I., [de Heredia, L., Lowe, A.J., Tutkova, M., Munro, R.C., Steinhoff, S.] (2002)

Leaf morphological differentiation between *Quercus robur* and *Quercus petraea* is stable across western European mixed oak stands. *Annals of Forest Science* **59**(7), 777–787.

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Selection of parents for the Scots pine breeding population in Britain. *Forestry* **75**(3), 293–303.

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A study of population variation and inheritance in Sitka spruce. II: Age trends in genetic parameters for vigour traits and optimum selection ages. *Silvae Genetica* **51**(2–3), 55–65.

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A study of population variation and inheritance in Sitka spruce. III: Age trends in genetic parameters for wood density and genetic correlations with vigour traits. *Silvae Genetica* **51**(4), 143–151.

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Temperate conifers. In: *Tree crop ecosystems*, ed. F. T. Last. Elsevier, Amsterdam, 75–97.

Lonsdale, D., MacAskill, G.A., Rose, D.R., Tilbury, C.A. and Thorpe, K.V. (2003)

The health of non-woodland trees in England during 1999 to 2000. Arboriculture Research and Information Note 152-PATH-03. Tree Advice Trust. Arboricultural Advisory and Information Service, Farnham, Surrey.

Macdonald, E. and Hubert, J. (2002)

A review of the effects of silviculture on timber quality of Sitka spruce. *Forestry* **75**(2) 107–138.

[McKay, H.] and Nisbet, T.R. (2002)

Overcoming concerns about the effect of forest management on water resources in Britain. In: *Proceedings of international expert meeting on forests and water, Shiga, Japan, 20–22 November 2002*. The Government of Japan, Ministry of Agriculture, Forestry and Fisheries, Forestry Agency. International Forestry Cooperation Office, Tokyo, Japan, 210–213.

[Mariette, S.], Cottrell, J., [Csaikl, U., Goikoechea, P., Konig, A., Lowe, A.J., van Dam, B.C., Barreneche, T., Bodenes, C., Streiff, R., Groppe, K., Munro, R.C.], Tabbener, H. and [Kremer, A.] (2002)

Comparison of levels of genetic diversity detected with AFLP and microsatellite markers within and among mixed *Q.petraea* (MATT.) LIEBL. and *Q.robur* L. stands. *Silvae Genetica* **51**(2–3), 72–79.

Mason, W.L. (2002)

Are irregular stands more windfirm? In: *Uneven-aged silviculture: tradition and practices*, eds P. Rotach, J.-P. Schutz and G. Kenk. Special Issue *Forestry* **75**(4), 347–355.

Mason, W.L. (2001)

Herausforderungen an die Dauerwaldwirtschaft bei der Gestaltung von Nadelwäldern in Grossbritannien. [Challenges to the use of continuous cover forestry in the management of conifer forests in Great Britain.] *Forst und Holz* **56**(19), 611–616.

Mason, W.L., [Menzies, M.I. and Biggin, P.] (2002)

A comparison of hedging and repeated cutting cycles for propagating clones of Sitka spruce. *Forestry* **75**(2), 149–162.

Matthews, R.W. and Broadmeadow, M.S.J. (2003)

Survey methods for Kyoto Protocol monitoring and verification of UK forest carbon stocks. In: *UK emissions by sources and removals by sinks due to land use, land use change and forestry activities. Report, April 2003*. Defra, London. www.nbu.ac.uk/ukcarbon

Mayle, B.A. (2003)

The impact of introduced deer on the natural environment. In: *Conference proceedings. The return of the native: the reintroduction of native species back into their natural habitat, Hadlow College, Tonbridge, Kent, 24 February 2001; MammAliens: a one-day conference on the problems caused by non-native British mammals, University of Greenwich, Chatham, Kent, 23 February 2002*, ed. C. P. Bowen. People's Trust for Endangered Species; Mammals Trust UK, London, 49–52.

Mochan, S. (2003)

Windblow and timber quality 1. In the first of a two-part feature, Shaun Mochan, Timber Quality Project Manager, Forest Research, Northern Research Station, looks at the effects of windblow in Sitka spruce quality. *Forestry & British Timber* **32**(2), 21–22.

Moffat, A.J. (2002)

The state of British forests at the beginning of the 21st century. *International Forestry Review* **4**(3), 171–183.

Moffat, A.J., [Kvaalen, H., Solberg, S. and Clarke, N.] (2002)

Temporal trends in throughfall and soil water chemistry at three Norwegian forests, 1986–1997. *Forest Ecology and Management* **168**(1–3), 15–28.

Moffat, A.J. and Kennedy, F. (2002)

Indicators of soil quality for UK forestry. In: *Identification and development of a set of national indicators for soil quality*, eds P. J. Loveland and T.R.E. Thompson. Environment Agency Research & Development Project Record P5-053/PR/02, 77–104.

[Morse, A.P., Gardiner, B.A. and [Marshall, B.J.] (2002)

Mechanisms controlling turbulence development across a forest edge. *Boundary-Layer Meteorology* **103**(2), 227–251.

Nicoll, B.C. and Rayner, W.F. (2002)

Mechanised planting. Bruce Nicoll and Bill Rayner of Forest Research, Northern Research Station, describe the planting quality and establishment of machine planted trees on ex-agricultural land. *Forestry & British Timber* **31**(12), 28–30.

Nisbet, T.R. (2002)

Best management practices for protecting forest watersheds in the UK. In: *Sustainable forestry to protect water quality and aquatic biodiversity*. *Kungl. Skogs-och Lantbruksakademiens* **141**(7), 95–102.

Nisbet, T.R. (2003)

Opportunity mapping for trees and floods. In: Special feature – Forestry, water and flooding. *ICF News*, Issue 1/2003, 4–5.

Nisbet, T.R. and [McKay, H.] (2002)

Sustainable forestry and the protection of water in Great Britain. In: *Proceedings of international expert meeting on forests and water, Shiga, Japan, 20–22 November 2002*. The Government of Japan, Ministry of Agriculture, Forestry and Fisheries, Forestry Agency. International Forestry Cooperation Office, Tokyo, Japan, 101–112.

O'Brien, E. A. (2003)

Public and institutional perspectives on forests and trees: a view from Vermont. Forestry Commission. Forest Research, Farnham, Surrey.

O'Brien, E.A. (2003)

Human values and their importance to the development of forestry policy in Britain: a literature review. *Forestry* **76**(1), 3–17.

Perks, M.P., [Irvine, J. and Grace, J.] (2002)

Canopy stomatal conductance and xylem sap abscisic acid (ABA) in mature Scots pine during a gradually imposed drought. *Tree Physiology* **22**(12), 877–883.

Petty, S.J., [Lurz, P.W.W. and Rushton, S.P.] (2003)

Predation of red squirrels by northern goshawks in a conifer forest in northern England: can this limit squirrel numbers and create a conservation dilemma? *Biological Conservation* **111**(1), 105–114.

[Pryor, S.N.] and Smith, S. (2002)

The area and composition of plantations on ancient woodland sites: an analysis of the area, distribution and composition of plantations on ancient woodland sites in Britain using data from the Forestry Commission's National Inventory of Woodlands and Trees. The Woodland Trust, Grantham, Lincs.

Quine, C.P., Humphrey, J.W., Purdy, K. and Ray, D. (2002)

An approach to predicting the potential forest composition and disturbance regime for a highly modified landscape: a pilot study of Strathdon in the Scottish Highlands. In: *Disturbance dynamics in boreal forests: defining the ecological basis of restoration and management of biodiversity*, eds E. Korpilähti and T. J. Kuuluvainen. *Silva Fennica* **36**(1), 233–247.

Redfern, D.B. and MacAskill, G.A. (2003)

Susceptibility of Sitka spruce and grand fir trees to decay by *Heterobasidion annosum*. *Forest Pathology* **33**(1), 39–52.

[Robertson, K., Ford-Robertson, J.,] Matthews, R.W. and [Milne, R.] (2003)

Comparison of the CFLOW and CARBINE carbon accounting models. In: *UK emissions by sources and removals by sinks due to land use, land use change and forestry activities. Report, April 2003*. Defra, London. www.nbu.ac.uk/ukcarbon

Rose, D.R. and [Jordan, B.] (2002)

Appreciation: John Bartle. *Scottish Forestry* **56**(2), 122.

Staley, J.T. and [Hartley, S.E.] (2002)

Host-mediated effects of feeding by winter moth on the survival of *Eucera phis betulae*. *Ecological Entomology* **27**(5), 626–630.

Straw, N.A., [Armour, H.L.] and Day, K.R. (2002)

The financial costs of defoliation of Scots pine (*Pinus sylvestris*) by pine looper moth (*Bupalus piniaria*). *Forestry* **75**(5), 525–536.

Thorpe, K.V. and Day, K.R. (2002)

The impact of host plant species on the larval development of the large pine weevil. *Agricultural and Forest Entomology* **4**(3), 187–194.

[van Dam, B.C., Vanden Broeck, A.], Cottrell, J. and [Heinze, B.] (2002)

Genetic diversity in black poplar and the implication for riparian eco-system management, summary of the panel discussion. In: *EUROPOP Populus nigra L. Genetic diversity in river populations of European black poplar: implications for riparian eco-system management. Proceedings of an international symposium in Szekszárd, Hungary, 16–20 May 2001*, eds B. C. van Dam and S. Bordács. Csiszár Nyomda, Budapest, Hungary, 229–231.

[Vanguelova, E., Nortcliff, S.], Kennedy, F.M. and Moffat, A.J. (2002)

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[Wallington, E.D., Woodhouse, I.H.] and Suárez-Minguez, J. (2003)

Would a microwave be useful in your forest? The application of remote sensing for operational forestry is nearing commercial realisation. *Forestry & British Timber* **32**(1), 12–13.

[Williams, B.A.], Pyatt, D.G. and Anderson, A.R. (2003)

Potential nitrification in the profile of a peaty gley soil beneath *Molinia* planted with pine, spruce and birch. *Forest Ecology and Management* **176**(1–3), 473–484.

Willoughby, I., [Clay, D. and Dixon, F.] (2003)

The effect of pre-emergent herbicides on germination and early growth of broadleaved species used for direct seeding. *Forestry* **76**(1), 83–94.

Wood, M.J., Moffat, A.J. and [Carling, P.A.] (2003)

Improving the design of slash roads used to reduce soil disturbance during mechanised harvesting of coniferous forest plantations in the UK. *International Journal of Forest Engineering* **14**, 11–23.

Major research programmes undertaken by Forest Research

Programmes funded by the Forestry Commission

Entomology Branch

Plant health

Hugh Evans, Nick Fielding and Christine Tilbury

Research into the risks from indigenous and non-indigenous forest insect species. Co-ordination and implementation of surveys in relation to retention of EU Protected Zone status for named bark beetle pests. The use of Pest Risk Analysis techniques to determine contingency options for potential pests. Research into alternatives to methyl bromide as a quarantine and remedial treatment against exotic pests (part EU-funded).

Restocking pests

Stuart Heritage

Research into the effective use of chemical pesticides for control of restocking pests, notably *Hylobius abietis*. Research into and development of insect parasitic nematodes for biological control of larval stages in stumps and provide direct intervention options within the Integrated Forest Management programme being developed in the Branch.

Impact of insects on tree growth

Nigel Straw

Investigate quantitative relationships between insect population pressure and the growth of trees attacked by those insects. An important aim is to separate the direct effects of damage from other biotic and abiotic variables that might mask the impacts of pest insects. The target species is green spruce aphid, *Elatobium abietinum*, which severely defoliates both Norway and Sitka spruces.

Integrated Forest Management

David Wainhouse, Roger Moore and Hugh Evans

Develop the concepts and science of Integrated Forest Management (IFM) to underpin sustainable forestry with particular emphasis on reductions in chemical pesticides. Study the population dynamics of *Hylobius abietis* and use the data to develop decision support systems for management of the restocking problem. Investigate the variability in quality of both stumps and transplants in relation to performance of *H. abietis* and use the data to refine management options within the IFM programme. Develop a decision support system for sustainable reduction of *H. abietis* populations towards the acceptable damage threshold predicted by the population dynamics models.

Mechanisms of tree resistance to insect attack

David Wainhouse

Investigate mechanisms of resistance of young conifers to the pine weevil. Determine the relative importance of genetic and environmental factors in resistance expression. Develop these aspects to contribute to an Integrated Forest Management (IFM) approach for control of pine weevil.

Advisory services

Christine Tilbury

Provide identification services for both pest and beneficial insects and provide advice on pest management and control.

Environmental Research Branch

Soil sustainability

Fiona Kennedy and Elena Vanguelova

Research to identify and evaluate the potential impacts of both forest management and air pollution on soil status and dynamics. Develop and advise upon sustainable practices.

Reclamation of man-made sites for forestry

Andy Moffat, Kirsten Foot and Tony Hutchings

Improve methods of establishing woodland and management practices on disturbed (brown field) sites, taking into account changes in forestry and land-use policy, planting opportunity, environmental impacts, mining practices and technology. Develop best practice guidelines.

Forest hydrology

Tom Nisbet

Study the impacts of forests and forestry management practices on water quality and quantity. Develop and assess guidance on best management practice for the protection of the freshwater environment within forests. Provide expert advice on forestry–water issues.

Effects of air pollution on trees

Dave Durrant and Andy Moffat

Determine the role of air pollution in forest condition and growth through long-term intensive environmental monitoring in forest ecosystems, in compliance with EC regulations. Provide data under the Convention on Transboundary Air Pollution for the calculation and mapping of critical loads.

Climate change

Mark Broadmeadow

Predict and model the impacts of climate and wider environmental change on tree growth by experimental work in open-top chambers and in forest stands. Interpret published climate change scenarios and develop guidance on future species suitability, both for production woodland management and native woodland restoration. Identify interactions between forests, woodland management and the changing global environment.

Carbon

Mark Broadmeadow

Develop a network for monitoring carbon stocks and stock changes of woodland in the UK. Maintain one of only three long-term carbon flux monitoring stations in woodland in the UK, measuring carbon fluxes and constructing a carbon budget for a stand of lowland broadleaf woodland. Research the contribution that wood (including bioenergy production) and wood products can make to climate change mitigation.

Environmental change network

Sue Benham

Monitor and understand environmental change and its impact on terrestrial ecosystems. Manage one of the national ECN terrestrial sites.

Historic environment

Peter Crow

Develop methods, tools and guidance to aid the day to day management of historic environment features such as archaeological evidence, veteran trees and historic woodlands/landscapes.

Mensuration Branch

Sample plots

John Proudfoot

Develop and maintain national reserve of periodic growth and yield data to support measurement, growth and yield studies using a network of permanent and temporary sample plots. Current focus: contemporary silvicultural practices, uneven-aged planting mixtures, modern planting and harvesting systems, long-term environmental change monitoring.

Yield models

Robert Matthews

Improve methods and models for forecasting growth and yield of forests. Current focus: development of interactive stand-level yield model software, site:yield relationships, biomass yield models.

Measurement

Ewan Mackie

Develop and promote measurement systems and instruments for the accurate and efficient measurement of trees and timber to support industry, national and international standards. Provide independent expert advice in cases of measurement dispute.

Core model

Sam Evans

Integrate modelling initiatives within Forest Research by developing a framework of existing and new models and relevant datasets. Taking growth models as a starting point, the core model programme aims to provide modelling tools at appropriate scales of resolution to support and promote the implementation of multi-purpose sustainable forestry policy in the UK.

Pathology Branch

Tree diseases: diagnosis and provision of advice

David Rose and Sarah Green

Diagnose disease in trees and provide advice and information on disease identification, management and control. Provide information on decay in standing trees, and on management of veteran trees.

Tree health monitoring

Steven Hendry

Monitor the health of the nation's trees and raise awareness of tree health issues.

Risks from altered pathogens

Clive Brasier

Investigate changes in pathogen behaviour and evaluate the potential impact of such changes in relation to plant health and Pest Risk Analysis.

Non-chemical protection

Joan Webber

Research and evaluate the potential for biological control of tree diseases, with special emphasis on root rot pathogens and the fungi that cause vascular wilts and stain and decay.

Fomes root and butt rot of conifers

Katherine Thorpe

Conduct research on root and butt rot of conifers caused by *Heterobasidion annosum* and investigate approaches to management and control.

Phytophthora diseases of trees

Clive Brasier and Joan Webber

Investigate pathogenic *Phytophthora* species of alder and oak to determine their impact and the opportunities for management and control.

Silviculture (North) Branch

Integrated establishment systems for the uplands

Alan Harrison, Mike Perks and Colin McEvoy

Integrated studies of the effect of nursery practice, seedling physiology, plant handling methods, site preparation and maintenance upon tree establishment.

Silvicultural effects upon timber quality

Barry Gardiner, Jason Hubert, Elspeth Macdonald and Shaun Mochan

Investigate the impact of silvicultural practices on timber quality in conifers, especially spruce. Main emphasis is impact of site factors (e.g. exposure, fertility) on quality.

Silviculture of upland native woodlands**Richard Thompson and Colin Edwards**

Research into the structure, dynamics and silviculture of native woodland ecosystems in northern and western Britain to support restoration and extension for ecological and economic benefits. Emphasis is on Scots pine forests, birchwoods and the Atlantic oakwoods.

Alternative silvicultural systems in conifer forests**Bill Mason, Colin Edwards and Sophie Hale**

Evaluate canopy structure manipulation to promote suitable microclimates for seedling establishment and facilitate natural regeneration to enable wider use of alternative silvicultural systems to patch clearfelling (continuous cover forestry).

Stability of stands**Barry Gardiner, Bruce Nicoll, Alexis Achim and Juan Suárez**

Research to reduce wind damage to British forests using a GIS-based windthrow risk model for predicting the probability of windthrow in Sitka spruce forests. Carry out studies of root development and architecture in support of the model.

Remote sensing**Juan Suárez**

Evaluate the potential of remote sensing techniques for operational use in British forest management.

Silviculture and Seed Research Branch**Alternative establishment systems****Ian Willoughby and Richard Jinks**

Investigate alternatives to conventional establishment systems for new planting and regenerating existing woodlands, including vegetation management, reducing synthetic chemical inputs and direct seeding.

Energy coppice and poplar research**Ian Tubby**

Investigate dry matter yields of willow and poplar coppice grown for renewable energy.

Lowland native woods**Ralph Harmer**

Examine methods for managing, regenerating and extending lowland native woodlands.

Silvicultural systems**Gary Kerr**

Examine the potential for diversifying the range of silvicultural systems used in native woodlands.

Seed and seedling biology**Peter Gosling and Richard Jinks**

Improve tree seed quality and performance to reduce costs and increase reliability of direct seeding and natural regeneration.

Social research unit (inter-Branch)**Paul Tabbush and Elizabeth O'Brien (SSRB, Alice Holt)****Max Hislop and Suzanne Martin (Silv(N), NRS)**

Examine relationships between communities and woodlands in support of FC policies on sustainable forest management. Work concentrates on community involvement, publicly held values, health and well-being, criteria and indications of sustainability, recreation, access and rural development.

Technical Development Branch**Large-scale forestry harvesting****Colin Saunders**

Evaluate machinery and equipment, produce output guidance and investigate operational techniques relevant to large-scale forestry work in harvesting.

Large-scale ground preparation, seed sowing and planting**Steve Morgan, Andy Hall and Bill J. Jones**

Evaluate machinery and equipment, produce output guidance and investigate operational techniques relevant to large-scale forestry work in ground preparation and planting.

Farm and small-scale silviculture/harvesting and utilisation of small woodlands**Andy Hall**

Develop methods and assess equipment with low environmental impact suitable for use in small, generally broadleaved woodlands, and suitable for use by farmers and small contracting firms.

Forestry operations on derelict and reclaimed land**Bill J. Jones**

Undertake focused research into the cost-effectiveness of restoration techniques, with an emphasis on system and cost advice on techniques recommended by scientists.

Wood for energy**Andy Hall and Paul Webster**

Develop methods for using short rotation coppice, single-stemmed short rotation forestry, forestry residues and existing undermanaged woodlands for small-scale heating and small- or large-scale electricity generation.

Chemical weeding**Bill J. Jones**

Evaluate equipment, application techniques and safety.

Reduction in the use of chemicals**Bill J. Jones and Paul Webster**

Examine equipment and methods that offer opportunities for non-chemical weed control.

Health and safety

Bill M. Jones and Colin Saunders

Review techniques and procedures for management of health and safety of machine operators.

Tree Improvement Branch

Selection and testing of conifers

Steve Lee

Undertake plus-tree selection, progeny testing. Breeding/production populations. Demonstration of realised gain. Development of techniques for marker aided selection. Species: Sitka spruce, Scots pine, Corsican pine, Douglas fir, larch.

Breeding and production of conifers

Steve Lee

Clonal archives: conservation, advanced breeding material. Improved seed: controlled pollination, seed orchards.

Improvement of broadleaves

Ned Cundall

Selection/testing of selections at population, family and clonal level: oak, ash, sycamore, beech, birch.

Origin and provenance of conifers

Sam Samuel

Identification of suitable origins of conifer species. Key species: Sitka spruce, Douglas fir.

Genetic Conservation

Joan Cottrell

Study of genetic variation and gene flow in natural populations. Assessing the level of adaptive variation in the field trials of populations of native species.

***In vitro* propagation and phase-change biotechnologies**

Allan John

Investigate tissue culture systems for multiplication of Sitka spruce.

Forest Reproductive Material Regulations

Sam Samuel

Devise methods for inspection of material proposed for registration. Maintain the National Register of Basic Material.

Woodland Ecology Branch

Biodiversity evaluation and indicators

Jonathan Humphrey

Synthesise datasets from the biodiversity assessment project, identify potential biodiversity indicators, and disseminate findings.

Forest habitat management

Jonathan Humphrey, Russell Anderson and Helen Armstrong

Investigate and provide guidance on the management of forests for biodiversity through developing old growth stands, utilising cattle grazing and managing open ground habitats.

Species Action Plans

Alice Broome, Roger Trout, Chris Quine and Brenda Mayle

Undertake research in support of Forestry Commission commitments to the species Biodiversity Action Plans and provide advice on appropriate management of woodland habitats for these species.

Landscape ecology

Kevin Watts and Chris Quine

Improve understanding of how biodiversity responds to management at the landscape scale, and translate this into practical management guidance for forest design.

Ecological site classification and decision support systems

Duncan Ray

Research, build and test models that predict the effect of forest management on forest ecology, and develop decision-making tools for ecological site classification and forest biodiversity.

Squirrel management

Brenda Mayle

Develop cost-effective means of managing the impact of grey squirrels on timber production. Investigate the impact of grey squirrels on woodland biodiversity.

Deer population ecology and management

Robin Gill, Helen Armstrong and Brenda Mayle

Provide a sustainable basis for deer management in UK woodlands by investigating and developing new techniques and models of impacts and damage, population dynamics of deer, and deer density assessment.

Tree protection

Roger Trout

Develop techniques and materials for cost-effective protection of trees and woodlands from vertebrate damage.

Woodland Surveys Branch

National inventory of woodlands and trees

Steve Smith

Undertake the FC national survey of woodlands and trees, assessing the woodland cover. Update key statistics on forest type, species, age-class, management and ownership.

Inventory GIS development

Graham Bull

Create the digital woodland map for Britain. Develop the use of GIS for providing spatially referenced data on the woodland cover of Great Britain.

Private sector production forecast

Justin Gilbert

Develop and produce the private sector production forecast incorporating new woodland data from the national inventory.

Programmes funded by the European Commission

Alternatives to methyl bromide for quarantine treatment.

Application of cDNA Microarray Technology for unravelling molecular events underlying dormancy and cold hardiness in forest tree seedlings.

Bark and wood boring insects in living trees.

Ash for the future: defining European ash populations for conservation and regeneration.

Compression wood in conifers.

Control of decay.

Demonstration of sustainable forestry to protect water quality and aquatic biodiversity.

Development of guidance for health management of harvesting machine operators.

Development of improved pest risk analysis techniques for quarantine pests, using pinewood nematode *Bursaphelenchus xylophilus* in Portugal as a model system.

Eco-engineering and conservation of slopes for long-term protection from erosion, landslides and storms.

Forecasting the dynamic response of timber quality to management and environmental change.

Forest condition surveys.

Gene flow in oaks.

Improving ash productivity for European needs by testing selection, propagation and promotion of improved genetic resources.

Improving protection and resistance of forests to the spruce aphid.

Integrating ecosystem function into river quality assessment and management.

Intensive monitoring of forest ecosystems.

Larch wood chain.

Modelling of *Heterobasidion* infection in European forests.

Native black poplar genetic resources in Europe.

Natural regeneration of oak.

Phytophthora in European oak decline.

Urgent conservation management for Scottish capercaillie.

Upgrading the Level II protocol for physiological modelling of cause–effect relationships: a pilot study.

Visualisation tools for public participation in the management of landscape change.

Programmes funded by individual organisations

Cranfield
Development of heat penetration models to predict the rate of heating in wood during quarantine treatment.

Office of the Deputy Prime Minister
Monitoring the health of non-woodland trees.
Potential for woodland establishment on landfill sites.

Department for the Environment, Food and Rural Affairs/Loughborough University
Trees and drought in lowland England.

Department for the Environment, Food and Rural Affairs/Natural Environment Research Council
Cause–effect relationships for pollutant inputs to UK woodland ecosystems.

Department of Trade and Industry
Yield models for energy coppice of poplar and willow.

EC/Highland Birchwoods
Conservation of native oakwoods.

EC/Scottish Natural Heritage
Restoration of wet woods.

English Nature
Woodland restoration - comparison of inventory data.
Brash management.

Environment Agency
Phytophthora disease of alder.

Health and Safety Executive
Development of guidance on the use of mobile elevated platforms in arboriculture.

Health and Safety Laboratories
Vibration exposure of chainsaw operators.

ITE
Terrestrial effects of acid pollutants.
UK emissions by sources.

Kemira Fertilisers
Slow release fertilisers for cell-grown seedlings.

Macfarlane Smith
Vertebrate repellents.

Madeira National Park
Mammal control.

Department for the Environment, Food and Rural Affairs

Development of a site-specific yield model for ash in lowland England and Wales.

Provenance testing of broadleaved species in farm forestry.

Yield models for energy coppice of poplar and willow.

Natural Environment Research Council/Imperial College

Variation in the Dutch elm disease pathogens.

Terrestrial carbon dynamics.

National Forest Company

Research and demonstration in the National Forest.

Raleigh International

Huemul ecology research for the conservation planning in Southern Chile.

Southampton University

Short rotation coppice (poplar).

Scotland and Northern Ireland Forum for Environmental Research

A coupled soil–forest–atmosphere dynamic model for predicting evapotranspiration demands at the plot and landscape scales in the UK.

Effect of riparian forest management on the freshwater environment.

Scottish Forestry Trust/UK Forest Products Association/Tilhill Economic Forestry/Scottish Woodland Owners Association

Assessing log quality in Sitka spruce.

Scottish Natural Heritage

Balancing upland and woodland strategic priorities.

Testing methods for monitoring beaver impacts on terrestrial vegetation in Knapdale.

Woodland Trust

Weed control using non-chemical methods.

Research contracts awarded by Forest Research

Avon Vegetation Research

Forestry herbicide evaluation.

Butterfly Conservation

Study of small pearl-bordered fritillary populations in Clocaenog Forest.

Cranfield University, BHR Group

Development and production of prototype systems to separate insect parasitic nematodes from rearing media.

Environment Agency (Wales)

Effects of forestry on surface water acidification.

Fountain Forestry

Water monitoring, Halladale.

Freshwater Fisheries Laboratory

Effects of riparian forest clearance on fish populations.

Imperial College, London

Control of decay in utility poles.
Development of a biological control agent for Dutch elm disease.

Macauley Land Use Research Institute

Sustainability of afforestation development, Halladale.

Mountain Environments

Investigation of the long-term effects of forest management on upland catchments (Balquhider).

Scottish Environment Protection Agency

Effects of forestry on freshwater fauna.

University of Abertay, Dundee

Cryopreservation of Sitka spruce tissues.

University of Birmingham

Woody debris in forest aquatic habitats.

University of Leeds

Atmospheric boundary layer over forests.
Chemical transport in forests.

University of Reading

Tree root response to acidification.
Soil variability.

University of Southampton

Water and fine sediment transport in rivers with wooded floodplains.

University of Stirling

Habitat use of working forest by capercaillie.
Paleoecology of Glen Affric.

University of Sussex

Biochemical mechanisms for plants to act as sinks for atmospheric pollutants.
Drought tolerance in poplars.

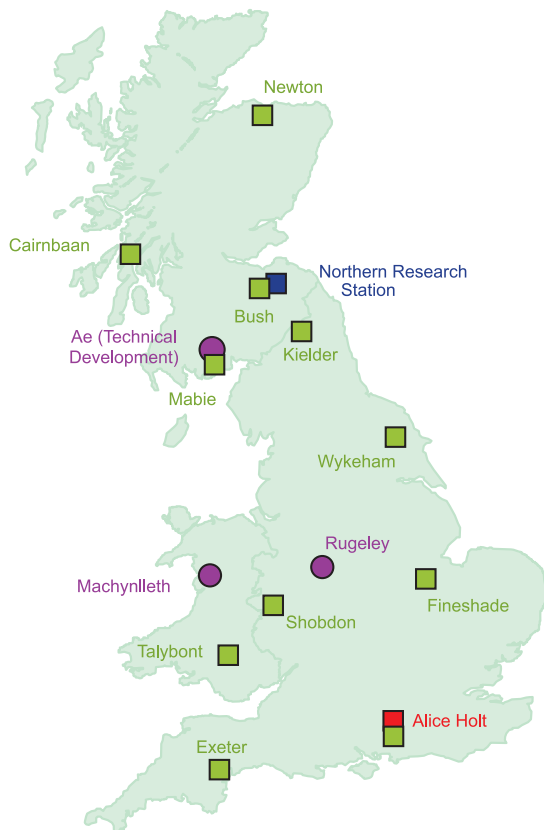
University of Ulster

Feeding ecology of the large pine weevil.
Impact of defoliating insects on forests.

Forest Research people

Staff as at 31 March 2003, in Branches, Sections and Technical Services based at:

- **Alice Holt**
- **Northern Research Station**
- **Ae Village, Midlands and Wales**
- **Field Stations**



Chief Executive

up to May 2002

- Jim Dewar, BSc, MICFor

Chief Research Officer

and **Acting Chief Executive** from May 2002

- Peter Freer-Smith, BSc, PhD, DSc

Personal Secretary

- Claire Holmes*
- Sue Jones, BA, MA*

Head of Northern Research Station

from May 2002

- Bill Mason, BA, BSc, MICFor

Personal Secretary

- Madge Holmes

*Denotes part-time.

Administration Branch

- Ken Charles, FMS, *Personnel and Administration Officer, Head of Branch*

Central Services

- Mike Wheeler
- Mandy Sennet*
- Amanda Smith*
- Mike Young

Personnel

- Wendy Groves
- Janet Lacey
- Hayley Oldale

Typing

- Sue Stiles*, *Head of Section*
- Sally Simpson*
- Heather Russell*

Administration, NRS

- Martin Abrahams, *Head of Section*
- Gerry Cockerell
- Evelyn Hall
- Esther Kerr
- Heather Moreland*
- Linda Legge*
- Gill Mackintosh*
- Roz Shields*

Finance and Planning Branch

- Tony Cornwell, FCMA, *Head of Branch*
- Gilly Anderson*
- Laura Caless
- Peter Filewood
- David Georghiou, BA
- Carol Knight*
- Carole Martin
- Alison Melvin, BA
- Janet Turner

Communications Branch

Photography and Publications

- George Gate, *Head of Section and Acting Head of Branch*
- Glenn Brearley
- Jenny Claridge, BSc, ARCS
- Sally Taylor (*also with Library and Information*)
- John Williams

Library and Information

- Catherine Oldham, BA, MA, DipLib, MCLIP, *Head of Section and Librarian*
- Eleanor Harland, MA, DipLib, *Assistant Librarian*
- Kirsten Hutchison, MA
- Thelma Smalley

Entomology Branch

- Hugh Evans, BSc, DPhil, FRES, *Head of Branch*
- Gillian Green, BSc*
- Martin Jukes, CBiol, MIBiol
- Shirley Stephens*
- Nigel Straw, BSc, PhD, FRES
- Christine Tilbury, BSc
- David Wainhouse, MSc, PhD, FRES
- Stuart Heritage, MBA, CBiol, MIBiol, *Head of Section*
- Roger Moore, BSc, PhD

Environmental Research Branch

- Andy Moffat, BSc, PhD, *Head of Branch*
- Lorraine Adams, BSc
- Sue Benham, BSc
- François Bochereau, BSc, MSc
- Caroline Bristoll, BSc
- Mark Broadmeadow, BSc, PhD
- Samantha Broadmeadow, BSc, MSc
- Sylvia Cowdry*
- Peter Crow, BSc, MSc
- Dave Durrant, BA
- Kirsten Foot, BSc, MSc, EngD
- Tony Hutchings, MSc
- Elizabeth Luttrell, BSc (*also with Woodland Ecology Branch*)
- Anthea McIntyre, BSc
- Tom Nisbet, BSc, PhD
- Rona Pitman, BSc, PhD
- Danielle Sinnett, MSc
- Victoria Stokes, BSc, PhD
- Ernest Ward, BSc, MSc, CChem, MRSC
- Christine Whitfield*
- Matthew Wilkinson BSc, MSc

Mensuration Branch

- Professor Sam Evans, MA, PGDip, PhD, PhD, *Head of Branch*
- Catia Arcangeli, MSc, PhD
- Miriam Baldwin, HND, BSc, MSc
- June Bell
- Eric Casella, MSc, PhD
- Tim Cooper
- Ian Craig
- Paul Henshall, BSc
- Tracy Houston, BSc, MIS
- Ewan Mackie, BSc, MSc
- Robert Matthews, BSc, MSc
- John Proudfoot
- Tim Randle, BSc
- Paul Taylor, MA, MSc, MPhil

Pathology Branch

- Joan Webber, BSc, PhD, *Head of Branch*
- Professor Clive Brasier, BSc, PhD, DSc, Emeritus
- Anna Brown, BSc, PhD
- Sandra Denman, BSc, MSc, PhD
- Anthony Jeeves
- Susan Kirk
- Carol Lishman*
- David Rose, BA
- Joan Rose
- Katherine Thorpe, BA, MSc, DPhil
- Sarah Green, BSc, PhD, *Head of Section*
- Steven Hendry, BSc, PhD
- Grace MacAskill
- Heather Steele, BSc*

Silviculture & Seed Research Branch

- Paul Tabbush, BSc, FICFor, *Head of Branch*
- Vicky Cunningham, BSc
- Peter Gosling, BSc, PhD
- Ralph Harmer, BSc, PhD
- Andrea Kiewitt, BSc, MSc
- Richard Jinks, BSc, PhD
- Gary Kerr, BSc, FICFor, PhD
- Liz O'Brien, BSc, PhD
- Matt Parratt, BSc
- Ian Tubby, BSc
- Ian Willoughby, BSc, MBA, MICFor
- Christine Woods, BA

Silviculture North Branch

- Bill Mason, BA, BSc, MICFor, *Head of Branch*
- Alexis Achim, BSc
- Colin Edwards, BSc
- Professor Barry Gardiner, BSc, PhD, FRMetS
- Sophie Hale, BSc, PhD
- Alan Harrison, BSc
- Max Hislop, MICFor
- Jason Hubert, BSc, PhD
- Elspeth Macdonald, BSc, MSc
- Colin McEvoy, BA
- Suzanne Martin, BSc, PhD
- Shaun Mochan, MSc
- Bruce Nicoll, BSc
- Mike Perks, BSc, MSc, PhD
- Stephen Smith, BSc, MICFor
- Juan Suárez-Minguez, BSc, MSc
- Richard Thompson

Statistics and Computing Branch

- Jane Smyth, BSc, *Head of Branch*
- Carol Foden*
- Dai Jeffries, BSc
- Dan Johnson, BSc
- Timothy Knight, BSc
- Geoff Morgan, BSc, MSc, PhD
- Andrew Peace, BSc
- Lyn Pearce
- Chris Vials, BSc
- Wayne Blackburn, BSc, *Head of Section*
- Lynn Connolly*
- Tom Connolly, BSc, PhD
- Alec Gaw, BSc*
- Alvin Milner, BSc, PhD
- Lynn Rooney*

*Denotes part-time.

KEY: ■ Alice Holt ■ Northern Research Station ● Ae, Midlands and Wales ■ Field Stations

Tree Improvement Branch

- Sam Samuel, BSc, PhD, *Head of Branch*
- Stuart A'Hara, BSc, MSc, PhD
- Cathleen Baldwin
- Joan Cottrell, BSc, PhD
- Ned Cundall, BSc, PhD
- Allan John, BSc, PhD
- Steve Lee, BSc, PhD, MICFor
- Margaret O'Donnell*
- Rob Sykes

Woodland Ecology Branch

- Chris Quine, MA, MSc, MICFor, PhD, *Head of Branch*
- Russell Anderson
- Helen Armstrong, BSc, PhD
- Alice Broome, BSc
- Jonathan Humphrey, BSc, PhD
- Margaret Plews (*also with Technical Services Unit North*)
- Liz Poulson, MSc
- Duncan Ray, BSc
- Louise Sing, BA, MSc
- Brenda Mayle, MSc, *Head of Section*
- Andy Brunt
- Mark Ferryman
- Robin Gill, BSc, MSc, PhD
- Matthew Griffiths, BSc, MSc
- Elizabeth Luttrell, BSc (*also with Environmental Research Branch*)
- Ruaraidh Milne, BSc
- Roger Trout, BA, PhD
- Kevin Watts, BSc, PhD

Technical Development Branch

- Bill Jones, *Head of Branch*
- Bill J. Jones
- Steve Morgan
- Derry Neil
- Rosemary Nicholson*
- Joyce Rammell, BSc
- Colin Saunders
- Aileen Wallace*

Midlands

- Andy Hall
- Duncan Ireland, BSc
- Martin Lipscombe
- Paul Webster

Wales

- David Jones, EngTech, AMIAgrE

Woodland Surveys Branch

- Steve Smith, BSc, BA, MBA, *Head of Branch*
- Rab Beck
- Graham Bull
- Christine Brown
- Justin Gilbert, BSc
- Shona Macintosh
- Esther Whitton

Field Stations

Technical Services (North)

- Kate Fielding, *Head of Branch*

Engineering Services

- David Brooks, *Head of Engineering Services*
- James Nicholl
- John Strachan

Bush, Inver and Bush Nursery

- David Anderson, *Head of Stations*

Bush

- Colin Gordon
- Hamish Howell
- Nelson Innes
- Gavin Mackie
- Martin Mackinnon, BSc
- Steven Osborne, BSc
- Steven Sloan

Inver

- Nick Evans
- Bill Rayner

Bush Nursery

- David Clark, *Nursery Manager*
- John Armstrong
- Graeme Crozier
- Alan Purves

Cairnbaan

- Dave Tracy, BSc, *Head of Station*
- Pauline Simson, BSc
- Elma Wilson, BSc
- James Wilson

Kielder and Mabie

- Dave Watterson, *Head of Stations*

Kielder

- Terry Gray
- Mike Ryan
- Len Thornton

Mabie

- James Duff
- Joanne McGregor*
- Hazel MacLean
- Harry Watson
- James White

*Denotes part-time.

Newton and Lairg

- Alistair MacLeod, *Head of Stations*

Newton

- Hazel Andrew*
- Gillian Bowden
- Allison Cowie
- Andrew Kennedy, BSc
- Fraser McBirnie
- Stuart McBirnie
- Hugh MacKay, BSc
- Colin Smart
- Linda Tedford

Lairg

- Alexander Bowran
- Calum Murray
- Duncan Williams

Technical Services (South)

- Norman Day, *Head of Branch*

Alice Holt

- Nick Tucker, *Head of Station*
- Jamie Awdry
- Bob Bellis
- Tony Bright
- Kate Harris
- Steve Coventry
- Ian Keywood
- Vicky Lawrence
- Tony Martin
- Ralph Nickerson
- Doug Nisbet
- Jim Page
- Bill Page
- Sue Bellis

Alice Holt Workshop

- John Davey
- Mike Johnston

Exeter

- Dave Rogers, *Head of Station*
- Alan Ockendon
- Dave Parker
- Anthony Reeves
- Barnaby Wylder*

Fineshade and Thetford

- Dave West, *Head of Stations*
- Elizabeth Richardson

Thetford

- John Lakey
- Paul Turner
- Alistair Whybrow
- Steven Whall

Shobdon

- Nick Fielding, *Head of Station*
- Nigel Connor
- Brian Hanwell, BSc
- Jason Jones
- John Price
- Sharon O'Hare*
- Richard Nicoll

Talybont

- Chris Jones, BSc, *Head of Station*
- Lyn Ackroyd*
- Justin Chappell
- Dai Evans
- Carl Foster
- Richard Keddle
- Tony Price
- Rachel Sparks
- Ken Williams
- Colin Clayton

Wykeham

- Davey Kerr, *Head of Station*
- Ian Blair
- Lee Cooper
- Alex Hill
- Patricia Jackson*
- William Riddick

PhD students linked with Forest Research

- Helen Billiald (Sussex University)
- Lois Canham (University of Stirling)
- Lauren Crawford (Imperial College)
- Richard Curtis (University of Gloucester)
- Luis Dieguez (Salford University)
- Hannah Drewitt (University of Durham)
- Sharon Flint (Manchester Metropolitan University)
- Samantha Gale (Abertay University)
- Caroline Hacker (Imperial College)
- Joe Hope (University of Stirling)
- Jack Johnston (Colrairie University)
- Amanda Lloyd (Newcastle University)
- Anna Manoukiantis (University of Brighton)
- Tanya Ogilvy (Edinburgh University)
- Vini Pereira (Imperial College)
- Pernille Schiellerup (University College London)
- Helen Sellars (University of Liverpool)
- Helen Shaw (University of Stirling)
- Suzanne Swanwick (Cranfield University)
- Louise Timms (Imperial College)
- Alessandra Timarco (Reading University)
- Elena Vanguelova (Reading University)
- Georgios Xenakis (Edinburgh University)
- Liz Young (University of Portsmouth)

Research associate

- Steve Petty, PhD

*Denotes part-time.