

## Contents

- [Editorial](#)
- [An Introduction to the work of Ecology Division](#)
  - [People within Ecology Division](#)
  - [Highlights from recent activities](#)
  - [New work](#)
  - [Just over the horizon](#)
- [Kinnoul Hill and Drummond Hill forests, Perthshire](#)
- [News](#)
- [New publications](#)
- [Workshops/conferences](#)
- [About Ecotype](#)
- [Contact details](#)



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*Summon up the spring - A springtime walk in our woods over the next weeks may well reward you with the sight of the star-like flowers of the Wood anemone (Anemone nemorosa L.). In bright, sunny weather, the whole woodland floor may be adorned with a white carpet of these graceful, delicate flowers swaying in the spring breeze.*

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## Editorial



I have been looking forward to assuming the role of editor since Andy Brunt announced his secondment, and I must really thank him for not only his excellent work in past issues but for helping me settle into this new capacity. I am eager to continue what he has put in place and hope that this new style of newsletter will please our readership.

Ecotype has been the Biodiversity and Conservation Newsletter for the Ecology Division of Forest Research for a number of years, in the current form since May 2005, and as its predecessor Biotype going back to the start of the Biodiversity Research Programme.

Originally a way of communicating particularly the results of that programme, it has since been expanded to include information from many other projects related to forest biodiversity and conservation management that have Ecology Division involvement. Over the years, topics as diverse as biodiversity indicators, landscape ecology, red squirrel conservation, peatland habitats, lichens biodiversity, cattle grazing in woodlands, restoration of native woodland, plant communities in plantation forests, policy and practice of forestry and biodiversity in the UK, climate change and forest genetic diversity were covered.

As you will have noticed the layout of Ecotype is now adapted to reading on screen. No scrolling required any more, just flick through the pages. For those who prefer to print the newsletter, this is still possible.

From now on the main part of each issue will be made up by articles on a variety of special topics, deriving from all the Division's areas of research and research teams. They will give an update on ongoing work and focus on certain research projects. Over the year this should give an interesting outline of the work in which we are involved. Those main topics will be complemented by news snippets. New publications by the Division or the wider Forest Research with relevance to ecological topics will be introduced together with links to other useful sources such as articles in journals, proceedings etc. Details of forthcoming conferences or workshops in which we are involved will be included regularly together with contact details of people in the Division.

We intend to bring out Ecotype every two months with a break over summer: issues are planned for March, May, September, and November in 2007.

Any comments addressed to the editor are welcome.

*Andrea Kiewitt*  
*Editor*

## An introduction to the work of Ecology Division

Chris Quine



A new edition and a new editor of Ecotype provides a good opportunity to give you a brief update on happenings within Ecology Division of Forest Research. Firstly, to explain – the slight hiatus in Ecotype production has been caused by a change of editor. I am pleased to welcome Andrea Kiewitt to the role. Andrea has outlined her plans in the editorial. Thanks are due to Andy Brunt for past issues and steering the move from paper to electronic production. Andy has started a secondment to the Land Regeneration & Urban Greening Group in the Environmental and Human Sciences Division here at Forest Research.

In case you've forgotten who we are – here is a brief overview.

Please also visit our web pages

[www.forestresearch.gov.uk/ecology](http://www.forestresearch.gov.uk/ecology),

read past and future issues of Ecotype

[www.forestresearch.gov.uk/ecotype](http://www.forestresearch.gov.uk/ecotype),

or contact any of us direct should you want to know more (contact details at the end of the newsletter).

### Who we are

Ecology Division is one of five research divisions of Forest Research. We are a group of around 30 committed scientists and support staff who work on a broad range of topics connected with the conservation and enhancement of biodiversity in Britain's woodlands and related landscapes. The people within the Division are listed in the box overleaf.

### What we do

We carry out research, are involved in knowledge transfer and give advice to both policy makers and practitioners. Much of our research is funded by the Forestry Commission, but increasingly we deploy our expertise on work for others.

Work conducted for the Forestry Commission involves approximately 11 research programmes. These meet needs identified in the Forestry Commission Science and Innovation Strategy (2005), which are subsequently articulated by country representatives at the Programme Advisory Group, and then purchased by the Corporate and Forestry Support Group, the commissioning body for research in the Forestry Commission.

In recent months we have also worked for Scottish Natural Heritage, Countryside Council for Wales, SNIFFER, and a number of local authorities and regional councils. Another feature is our work in collaboration and partnership with others – such as in EU-funded projects, RELU grants, and in establishing studentships and joint projects. Joint working is encouraged to link distinct areas of expertise within the Division, and elsewhere in Forest Research.

Active contributions from the Division will go towards the six areas for growth identified in the Forest Research Development Strategy (2006):

1. Climate change
2. Urban greening
3. Biosecurity
4. Biomass energy
5. Health and well-being
6. Sustainable management of the woodchain

## People within Ecology Division (March 2007)

Research team	<i>Habitats and herbivores</i>	<i>Species</i>	<i>Genetic resources</i>	<i>Landscape ecology</i>	<i>Knowledge management</i>
Co-ordinator	Ralph Harmer	Brenda Mayle	Joan Cottrell	Kevin Watts	Duncan Ray
Members	Russell Anderson	Alice Broome	Jason Hubert	Chris Quine	Jonathan Humphrey
	Helen Armstrong	Roger Trout	Sam Samuel	Phil Handley	Louise Sing
	Robin Gill	Liz Poulson	Stuart A'Hara	Amy Eycott	Georgious Xenakis
	Richard Thompson	Mark Ferryman	Tytti Vanhalla	Mike Smith	Elaine Abbot
	Andrea Kiewitt	Rob Coope		Darren Moseley	

In the coming year, we plan to capitalise on the strength of joint working by developing synergies within five areas of research (research teams within the Division with contact names of the team co-ordinators):

1. Habitats and herbivore impacts – **Ralph Harmer**
2. Species conservation and control – **Brenda Mayle**
3. Genetic resources and molecular genetics – **Joan Cottrell**
4. Rural and urban landscape ecology – **Kevin Watts**
5. Knowledge synthesis and management – **Duncan Ray**

### A warm welcome to

**Phil Handley**, providing spatial analysis and GIS for the landscape ecology programmes, and who will be developing BEETLE front end in VBA and ArcGIS.

**Mike Smith**, working as contracts manager for a number of ecological projects.

**Tytti Vanhalla**, taking up a new post of conservation geneticist.

**Samantha Davies**, providing laboratory support for scat analysis of pine marten/fox.

**Claire Twiddle**, undertaking a NERC CASE studentship at University of Exeter.

### A fond farewell to

**Yvonne Grieve** who left us to take up a post with Forestry Commission Scotland working on the Scottish Native Woodland Survey data.

## Highlights from recent activities

### Science

Stuart A'Hara and Joan Cottrell have taken delivery of a real-time PCR machine. This has the potential for recording changes in gene expression, identifying samples from very low levels of DNA and genotyping single nucleotide polymorphisms (SNPs). The initial use has been to identify the scat samples of pine martens and foxes amongst the 2000 scat samples collected as part of an EU LIFE project, utilising a method made available in a collaboration with Waterford Institute of Technology.



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### Knowledge transfer

We have presented results of our research at a range of meetings recently including

**British Ecological Society (BES) Annual General Meeting** in Oxford (September 2006) – papers on bog restoration, habitat networks, and networks and forest strategy.

**British Ecological Society (BES)/Forestry Commission (FC) Restoration of Conifer Forests** meeting in Bangor, North Wales (September 2006) – papers on biodiversity and restoration of plantation forests, and on a habitat network strategy for Wales.

**Hampshire Woodland Forum** meeting in Micheldever (October 2006) presentation on ecology and restoration of Plantations on Ancient Woodland Sites.

**Zoological Society of London/Mammal Society Meeting on Alien Invasives** (November 2006) – paper on grey squirrels.

**Ministerial Conference on the Protection of Forests in Europe (MCPFE) Workshop on Forest Types** in Slovenia (November 2006) – plenary paper on plantations and biodiversity.

**EU LIFE** project 'Urgent conservation measures for the Scottish Capercaillie' closing conference at Ballater (November 2006) – paper on results of monitoring of habitat enhancement, predator control, and fence marking.

**British Herpetological Society** meeting in Bournemouth (December 2006) – presentation on habitat network modelling.

**Association of Applied Biologists (AAB) Vegetation Management Conference** at Studley Castle, Warwickshire (January 2007) – papers on controlling bramble by using herbicides and on managing butterfly habitat by cattle grazing.

## New work

Among the new pieces of work that we have been commissioned to undertake are projects on:

### ***Urban networks for biodiversity and people for SNIFFER (the Scotland and Northern Ireland Forum for Environmental Research)***

contact:

Darren Moseley

Northern Research Station

Tel: 0131 445 6952

Email: [darren.moseley@forestry.gsi.gov.uk](mailto:darren.moseley@forestry.gsi.gov.uk)

### ***Assessing the potential risk of, and possible responses to, zoonotic diseases on the development of recreational use of British forests and wild-lands for RELU (Rural Economy and Land Use programme)***

contact:

Dr Chris Quine

Northern Research Station

Tel: 0131 445 2176

Email: [chris.quine@forestry.gsi.gov.uk](mailto:chris.quine@forestry.gsi.gov.uk)

### ***An ecological site classification for Ireland for COFORD (funders of forest research in Ireland)***

contact:

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## Just over the horizon

Keep a look-out in the coming months for a number of outputs including:

**The HARPPS database** – contact Duncan Ray

**Information note on genetic conservation** – contact Jason Hubert

**An Open habitats practice guide** – contact Russell Anderson

For further information on the work of Ecology Division, please contact:

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Head of Ecology Division

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## Kinnoul Hill and Drummond Hill forests, Perthshire

Andrea Kiewitt

Ecology Division's annual divisional meeting was held in Perthshire, mid-Scotland and included two field visits hosted by Tay Forest District staff, with special thanks to Rob Coope for organising them.

The first visit was to Kinnoul Hill, a peri-urban woodland just outside Perth which has recently become jointly managed by Forest Enterprise and Perth District Council as part of the 'Woodlands in and around Communities' initiative. The visit was led by district foresters John Spittal and Chris Ford, and council ranger Ian Montgomery. Due to the proximity to an urban area visitor impact is quite high and the management of Kinnoul Hill reflects that by considering both ecological and recreational aspects. Potential conflicts were demonstrated by looking at the challenge of encouraging natural



Cliffs at Kinnoul Hill, overlooking the river Tay

regeneration in a pine plantation on a site of low suitability for this species but where visitor perception expected continuity in pine. Amongst other issues discussed were risks to the public with increased use of the woodland for recreation and particular hazards such as high cliffs; ecological benefits versus visitor safety of standing deadwood; and managing visitor access including paths that follow existing desire lines but may lead to habitat damage.

The Forest Design Plan for Kinnoul Hill showed that consultation with the local communities is of great importance, providing valuable input to the process of creating, implementing and reviewing the plan.

Differences between several woods were discussed and the influential role of interested user groups pointed out. One example looked at ecological issues of restoring a forested area to heathland. Another one considered gravel extraction in the wood. Experiences from previous gravel pit restoration had illustrated to the community the potential for habitat improvement as an acceptable trade-off for gravel extraction. The

district generally saw the need for engaging more people in their woods. Its role is moving on from traditional forestry to more integrated land management with emphasis on other aspects of recreation and amenity management. This includes integrating the needs of different user groups such as walkers, horse riders and mountain bikers, for example by setting aside a special mountain bike downhill course in part of the wood and thereby avoiding potential conflicts between the groups.



*Discussing recreation aspects in FC woodlands and the integration of different user groups with the District Foresters at a mountain bike downhill course.*

Supporting these changes in practice is where the district staff see the role of and opportunity for Ecology Division: to give advice and support to the district in both areas of traditional forestry and the newly developing areas of integrated land management.

This emphasis on integrated land management was also endorsed by Simon Hodge, Forestry Commission Scotland's Head of Policy, who joined our fieldtrip. He described a role for Ecology Division in providing ecological evidence to support the policy decisions made by his division. The 'hot topics' at the top of his list were:

- 1. Habitat networks and restoration.** The aim is to get 85% of designated sites into favourable condition, e.g. peatland restoration through deforestation; PAWS & native woodland restoration on all suitable sites. Wider restoration could be targetted through the use of Forest Habitat Networks for design plans, Indicative Forest Strategies, local plans, e.g. woodland habitat networks in the Glasgow & Clyde Valley.
- 2. Key species.** The intention is to halt and reverse losses in biodiversity, particularly of proxy species such as chequered skipper butterfly, black grouse, red squirrel or capercaillie. Working within the Nature Conservation Scotland Act they particularly want to address species disturbance at both species and habitat levels.
- 3. Monitoring & Inventory.** Further work on the woodland bird index; monitoring the condition of native woodland; deer browsing impacts.
- 4. Climate change:** Preparation for the future using modelling and decision-support to allow adaptation: habitat networks, species response, silvicultural systems.
- 5. Ecological basis for policy development.** Research to inform on social aspects of ecological issues and to guide the aims of the national forest estate.

Overall Simon was very positive about how well the current work undertaken by Ecology Division corresponded with these topics and that the policies brought forward by his team are well backed up by research. He emphasised that good communication plays a major part in the successful co-operation between our research and policy departments.



*Simon Hodge addresses members of Ecology Division at Kinnoul Hill Forest*

The second visit was to Drummond Hill forest and led by Charlie Taylor, the Forest District Manager. The main discussion points here were forest design planning, continuous cover, management for rare species, e.g. capercaillie, and veteran trees, including a visit to the Fortingall yew.

For more information on the projects within Tay Forest District contact:

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Scotland  
Tel. 01350 727284  
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### **SNIFFER : Urban Networks for People and Biodiversity\_**

This SNIFFER project (Scotland and Northern Ireland Forum for Environmental Research, [www.sniffer.org.uk](http://www.sniffer.org.uk)) will examine how networks can be implemented in urban environments, through a review of network approaches and principles and by using Edinburgh City as a case study (contact: [Darren Moseley](#)). The determination of networks for people will complement previous work on habitat networks, incorporating social datasets to demonstrate how an Integrated Habitat Network may be developed to address the multifunctionality of urban greenspace.

### **Glasgow & Clyde Valley integrated habitat network workshop**

[Mike Smith](#) and [Darren Moseley](#) ran a workshop in February to discuss the development of an Integrated Habitat Network (IHN) for the Glasgow & Clyde Valley (GCV) Green Network area. The IHN approach will strengthen the regional delivery of the GCV Green Network Partnership's Biodiversity Steering Group's understanding of how it can best support existing biodiversity initiatives to help deliver the GCV Green Network. It is proposed that the IHN approach would be piloted using regionally important habitats and species. The workshop was attended by a wide range of enthusiastic biodiversity stakeholders who identified the regional priorities and conservation issues that can be used in an IHN.

### **James Cup for best article in Quarterly Journal of Forestry**

[Kevin Watts](#) is joint winner of the Royal Forestry Society's (RFS) 2006 James Cup, which is given out each year to the author of the best article published in its Quarterly Journal of Forestry. His paper, Watts, K. (2006) British Forest Landscapes — The Legacy of Woodland Fragmentation. Quart. J. For. 100, 273-279, explains the new ideas in managing fragmented woodland for conservation and biodiversity. The cup will be presented to Kevin at a Royal Forestry Society event later this year.

This is the second time in close succession that the James Cup has been won by a member of Ecology Division. In 2004, the award went to [Ralph Harmer](#) for his article Harmer, R. (2004). Bramble for beginners. Quart. J. For. 98, 273-279.

## New publications

### Recently published articles by Ecology Division authors:

**Broome, A.C. (2007)** Management of butterfly habitat in north west Scotland: the effects of five years of cattle grazing. *Aspects of Applied Biology* **82**, *Vegetation Management*, pp. 199-212.

Contact: [Alice Broome](#)

**Broome, A.C., Hendry, S. and Peace, A. (2007)** Annual and spatial variation in coning shown by the Forest Condition Monitoring programme data for Norway spruce, Sitka spruce and Scots pine in Britain. *Forestry* **80**, pp. 29-40.

Contact: [Alice Broome](#)

**Harmer, R. and Willoughby, I. (2007)** Controlling bramble within an oak woodland using herbicides. *Aspects of Applied Biology* **82**, *Vegetation Management*, pp. 165-173.

Contact: [Ralph Harmer](#)

**Hope, J.C.E., Humphrey, J.W. and Stone, D. (2006)** Modelling the effects of forest landscape dynamics on focal species in Glen Affric, northern Scotland. *Forestry* **79** (3), pp. 293-302.

Contact: [Jonathan Humphrey](#)

**Trout, R. and Pepper, H. (2006)** *Forest Fencing: Forestry Commission Technical Guide*. Forestry Commission, Edinburgh.

Contact: [Roger Trout](#) or download the pdf <sup>(2255k)</sup> from [here](#).

## Workshops and Conferences

The Scottish Squirrel Forum holds a Meeting of Scotland's Field Practitioners of Red Squirrel Conservation Action

Swallow Hotel Dundee,  
Wolf & Lane Suite,  
Kingsway West, Invergowrie, Dundee, DD2 5JT

on Saturday 21 April 2007 at 09.30 – 16.30

A one-day meeting for local squirrel group members, countryside rangers, working foresters, woodland managers and local officers of the wildlife agencies to update on the progress of the Scottish Squirrel Survey and to discuss practical issues of red squirrel conservation in Scotland, with an option for a morning's field visits to Dundee Red Squirrel Project's active project sites.

For further information and to reserve a place at the Forum please contact:

*Mel Tonkin*  
Survey Co-ordinator  
email: [mtonkin@swt.org.uk](mailto:mtonkin@swt.org.uk)  
Scottish Squirrel Survey  
c/o Scottish Wildlife Trust  
Cramond House, Cramond Glebe Road  
Edinburgh EH4 6NS  
Tel 0131 312 4733 or 07778 412 146

For further information on the survey or to report sightings online, please go to their website [www.scottishsquirrelsurvey.co.uk](http://www.scottishsquirrelsurvey.co.uk)

## About Ecotype

### Who reads Ecotype

Ecotype addresses forestry practitioners and conservation professionals, in both the public and private sectors. Amongst our readership are people from:

- County and District Councils
- Natural England
- DEFRA
- Wildlife Trusts
- National Trust
- British Trust for Ornithology
- RSPB
- Woodland Trust
- Forestry Commission, Forest Enterprise
- Centre for Ecology & Hydrology
- Natural Environment Research Council
- Universities, Museums
- Private Consultants
- Interested individuals

### Who contributes

Most of the articles are written by people within the Ecology Division, and sometimes other parts of Forest Research, about work related to biodiversity and conservation management of forests and woodlands. Contributions may also be invited from other parts of the Forestry Commission, and others working within forest biodiversity and conservation, subject to relevance to the main themes of Ecotype. Note that the editor reserves the right to edit, delay or reject articles depending on the space available and relevance of the subject.

## Contact details

To provide material for future issues, or if you wish to receive Ecotype by e-mail, get in touch with the editor:

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For general enquiries concerning the biodiversity and conservation work of Forest Research, contact:

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Visit the web pages of Ecology Division at:

[www.forestresearch.gov.uk/ecology](http://www.forestresearch.gov.uk/ecology)

For more general information about the work of Forest Research, visit our website at:

[www.forestresearch.gov.uk](http://www.forestresearch.gov.uk)

For information on seminars, conferences and training days in which Forest Research are involved see the events webpage at:

[www.forestresearch.gov.uk/events](http://www.forestresearch.gov.uk/events)