



The Forests of the Cairngorms

Cairngorms National Park

Forest and Woodland Framework

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Cover: Native Scots pine forest, Glen Quoich © DUNCAN SHAW

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Looking from outside the Cairngorms National Park I know that visitors are enthralled by our beautiful landscapes where forests and woodlands play a significant role. Guided by this Framework, together with all our partners, in particular the Forestry Commission, we have a responsibility to look after these unique areas.

However, we also need to enhance these areas to improve the biodiversity in the Park and at the same time have respect for other important habitats.

It is important too, to recognise that this is largely a working landscape providing many public benefits ranging from recreation and cultural heritage to employment for land managers.

Ultimately, I believe that we should all be aiming to produce a land-use strategy for the Cairngorms National Park where people and nature work in harmony to look after our special place. This Framework is one of the important building blocks towards that aim.

A' coimhead bho thaobh a-muigh Pàirc Nàiseanta a' Mhonaidh Ruaidh tha fios agam gum bi luchd-tadhail air am fìor tharraing aig ar seallaidhean-tìre àlainn anns a bheil mòran choilltean. A' leantainn an Fhrèam seo, còmhla ri ar com-pàirtichean gu lèir, gu sònraichte Ùghdarras nan Coilltean, tha e mar uallach oirnn coimhead às dèidh nan ceàrnaidhean sònraichte seo.

Ach, feumaidh sinn cuideachd cur ri na h-àiteachan sin gus leasachadh a dhèanamh air bith-iomadachd na Pàirce agus aig an aon àm spèis a bhith againn airson àrainnean cudromach eile.

Tha e cudromach cuideachd aithneachadh gur e fearann a tha ann a tha ag obrachadh gus iomadh buannachd a thoirt don phoball bho chur-seachad agus dualchas gu cosnadh do mhanaidsearan fearainn.

Aig a' cheann thall, tha mi den bheachd gum bu chòir dhuinn uile amas air ro-innleachd cleachdadh-fearainn a chur ri chèile airson Pàirc Nàiseanta a' Mhonaidh Ruaidh far am bi daoine agus nàdar a' co-obrachadh airson coimhead às dèidh an àite shònraichte againn. 'S e am Frèam seo aon de na blocaichean togail cudromach a dh'ionnsaigh an amais sin.



David Green, Convener, Cairngorms National Park Authority

Daibhidh Green, Neach-gairm, Ùghdarras Pàirc Nàiseanta a' Mhonaidh Ruaidh



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I.1 Forest and Woodland in the Cairngorms National Park

The Cairngorms National Park contains the most extensive tracts of Caledonian forest in Britain, comprising pine, juniper and broadleaved species. The Park also contains the best examples in Scotland of bog woodland, montane willow scrub and stands of aspen. The native pine woodlands of predominantly self-sown Scots pine are the western-most link to the extensive boreal forest which formerly covered a much larger area of northern Europe.

Strathspey, Strath Avon, Glenlivet, Donside, Deeside and the Angus Glens combined contain an extensive, varied and predominantly native network of forest habitats. This is one of the most valuable ecological networks in Britain and one of the most widely recognised special qualities of the Cairngorms National Park (see map, p52).

The area of woodland in the Cairngorms in 1988 (Hall, 2006)

Woodland type	Area (hectares)	% Cairngorms National Park Area
Semi-natural	36,274	10
Mixed: semi-natural/planted	4,651	1
Planted	34,219	9
All woodland	75,144	20

1.2 Purpose of the Cairngorms Forest and Woodland Framework

This Framework sets out the policy basis for guiding practical action for the management of forests and woodland in the Cairngorms National Park. It follows a review of the 1999 Cairngorms Forest and Woodland Framework produced by the Cairngorms Partnership (Towers et al, 1999), and is the first of a range of frameworks covering the major 'landscape scale' land management activities within the Park.

With the unarguable onset of climate change there has never been a more important time to ensure that the species and habitats within the Cairngorms National Park are protected and enhanced. Forests and woodlands occupy a substantial area within the Park already. This Framework helps to ensure that future forestry activity is directed to where it matters most and that other important habitats and activities such as the management of farms, moorland, wetland and recreational resources also benefit.



The strategic objectives and local priorities within this Framework clarify what needs to be done within the Park to mitigate against climate change, develop a sustainable timber resource, aid forestry business development, foster community development, promote access and health, improve environmental quality and benefit woodland biodiversity.

The Framework is a supporting document to the Cairngorms National Park Plan, and fully endorses the seven themes within the Scottish Forestry Strategy: climate change; timber; business development; community development; access and health; environmental quality and biodiversity. For the first time, the Framework brings together into one document the range of Indicative Forestry Strategies (produced by the four local authorities which operate in the Park – Highland, Aberdeenshire, Moray and Angus) and other policies covering woodland management in the Cairngorms. In addition to the overall priorities for the Cairngorms as a whole, it provides further specific priorities for four distinct areas: Strathspey; Glenlivet, Glen Avon and Strathdon; Deeside and the Angus Glens.

Left: Aspen © PETER CAIRNS/www.northshots.com

1.3 Supporting the Aims of the Cairngorms National Park

The long-term success of the Cairngorms National Park is dependent on a collective approach to all four of its statutory aims (see p21). This is explicit in the founding legislation for the designation of National Parks and is implicit in the principles of sustainable development. The conservation and enhancement of the forest network and its predominantly native character must be integrated with the production, processing and local use of timber and the pursuit of broader objectives such as sustainable design, construction and renewable energy.

Public support and policy needs to encourage the wide range of benefits provided by forests, including nature conservation, business and community development, timber production, landscape enhancement, sport, recreation, health, environmental quality and carbon sequestration.

1.4 Integrated Land Management

Alongside forest and woodland management, numerous other legitimate objectives for land management are pursued in the Cairngorms National Park. For all of these to be successfully integrated, there is a need for good communication, dialogue and understanding between neighbouring land managers and with agencies.

There is a need for effective complementary public and private funding to enable the delivery of management objectives that are in the public and private interest.

Overall, a large-scale mosaic of semi-natural and productive forest, open canopy woodland, moorland and agricultural land will deliver a valuable mix of benefits for biodiversity, economic land-use, recreation and landscape.

Below: Discussing management of wildfire and forest plans in Glen Tanar © CNPA





2. Strategic Objectives

2.1 Strategic Objectives for Forest and Woodland Management in the Cairngorms National Park

The following Strategic Objectives for forest and woodland management in the Cairngorms take account of the policy context outlined in Section 4 (see p21) and in consultations undertaken during the drafting of the Cairngorms National Park Plan:

a) Promote multi-objective forest and woodland management that delivers environmental, economic and social benefits.

The forests and woodlands of the Park are a major asset because of the multiple objectives their management delivers, ranging from marketable timber to biodiversity, wood fuel, recreation, tourism and carbon sequestration.

b) Enhance the condition of existing woodland cover and expand to develop habitat networks that complement the landscape character and other land-uses.

The existing native woodland is an important special quality of the Park, and the current ratio of native to non-native species (85:15 per cent across all planted and self-sown areas) forms a distinctive part of the landscape and biodiversity. There should continue to be a mix of species, age and woodland structure that can deliver the objectives of production, recreation and conservation. The condition of existing native woods should be conserved and enhanced, and woodland habitats currently in a poor or unfavourable condition should be restored.

Woodland cover should be expanded through habitat networks, planned to integrate with other habitats and land-uses (in particular moorland management), to enhance ecosystem viability and help to encourage species that require large habitat areas in which to thrive. The creation of new forest nuclei should be encouraged to improve the connectivity between existing forest habitats. In the long-term, networks could lead to links between Strathspey and Deeside. Where expansion is through planting rather than natural regeneration, seed of local origin should be used to ensure the high level of genetic integrity already exhibited in the forests.

c) Encourage full range of forest ecosystems from valley floor to natural altitudinal tree-line in targeted areas and the re-development of woodland types that have declined.

Woodland cover in the Cairngorms has generally retreated to a lower altitude than its previous natural extent. In targeted locations identified as part of a strategic approach to a habitat network, the upper tree-line, including scrub cover such as juniper and montane willows, should be encouraged to extend up to its natural altitudinal limit. This will bring benefits to landscape and biodiversity.



d) Increase the value of timber and other local forest products, strengthen supply chains and develop new markets.

The economic viability of forest management remains key to ensuring a wide range of benefits in the long-term. Active investment in research and development is needed to raise awareness of the quality of local forest products, make better links between producers, processors and customers and develop new and emerging markets such as wood fuel and biomass for energy.

e) Promote the value of forests and woodlands as a major sustainable tourism asset, increasing the derived economic benefits to woodland owners and local communities.

Forests and woodlands should continue to develop as a major asset to sustainable tourism, providing a range of accessible and high quality recreation opportunities and creating a resource that underpins the landscape character and identity of the Cairngorms National Park. Ways to help woodland owners and local communities realise and capture the economic benefits of forest-based tourism should be explored.

Left: A montane willow © WILL BOYD-WALLIS

f) Promote community participation in forest and woodland planning and management.

Forests and woodlands form a significant part of the local and cultural identity for many communities within the Park, and local woodlands are valued for their amenity and recreation opportunities. Woodland management also offers potential economic and social benefits to local communities through contracting, use and marketing of forest products, learning, recreation and interpretation. Communities should be encouraged to inform forest policy development and contribute to the objectives and planning for forest management in order to maximise the benefits.

g) Contribute to national efforts to address climate change.

Forests and woodlands are an important resource in addressing climate change. The extensive forests of the Cairngorms National Park can make a significant contribution to national targets. Forests can help mitigate climate change, off-setting carbon emissions through carbon sequestration. They play an important role in enabling biodiversity to adapt to the effects of climate change by providing dispersal routes through robust habitat networks. The forest resource will also play an increasingly important role in the provision of wood fuel as a source of renewable energy. Setting aside areas of 'minimal intervention' where natural processes can predominate is an important principle in assisting species' adaptation to climate change.

Below: Deeside from Craigendarroch © DAVID GOWANS





3.1 Priorities for the Cairngorms National Park

This section summarises the main priorities for woodland and forest management across the entire Cairngorms National Park. Priorities for four sub areas – Forest of Spey; Strath Avon, Glenlivet and Strathdon; Deeside; the Angus Glens – are also covered in subsequent pages.

All expansion and management of forests and woodland is to be achieved through an integrated and inclusive approach to management planning that takes full account of neighbouring land-use interests:

- a) Enhance **forest habitat networks** between isolated fragments of native woodland, both within and between river catchments;
- b) Encourage the development of **multi-functional forests and woodlands** for the benefit of the local economy, biodiversity, landscape and recreation;
- c) Protect all **ancient and semi-natural woodlands** from further damage and fragmentation and restore them all in plantations on ancient woodland sites (PAVS);
- d) Encourage the **retention of deadwood** in all forest types for the benefit of biodiversity;
- e) Develop **montane and sub-alpine scrub** in new areas across the Park;
- f) Conserve and expand **riparian (riverine) woodlands** using appropriate native species for the benefit of biodiversity and downstream flood alleviation purposes;
- g) Enhance **landscapes** through sensitive restructuring or removal of inappropriately sited and commercially unviable forest blocks;
- h) Enhance **timber quality** through environmentally sensitive management;
- i) Improve the promotion and marketing of **sustainable forest products**;
- j) Promote **wood-fuel and biomass** production, particularly as an option for farm diversification;
- k) Retain **non-native species** in areas where they are currently concentrated, but encourage an additional mix of native species; and
- l) Ensure comprehensive plans are in place for the prevention of **wildfires**.

3.2 Priorities for the Forest of Spey

There is already a high percentage of woodland cover in the Spey catchment, particularly from Newtonmore downstream. Native woodland is dominant except in the upper reaches. Strathspey contains the largest extent of semi-natural birch woodland in Scotland, though in many places this is highly fragmented.

Strathspey contains the largest area of aspen woodland in the UK and there are some fine examples of wet woodlands and montane scrub.

Given the scale of the existing forest, there is considerable potential for a diverse range of forest management objectives to be accommodated; all of which may serve to enhance the overall extensive network of forest habitats. However there is also potential to further expand and enhance these valuable networks by linking isolated fragments, both within Strathspey and other areas.



In addition to the overall priorities for the Cairngorms National Park as a whole, the following relate particularly to the Forest of Spey:

- a) **Restructure existing pine woodlands** where necessary to create woodlands with an enhanced nature conservation and landscape value, whilst sustaining timber production;
- b) **Encourage the establishment of new native pinewoods** with a varying broadleaved component in higher ground (pine-birch areas), especially where this would facilitate forest connectivity between river catchments;
- c) **Increase the extent of aspen** both within and outwith existing woodlands;
- d) Retain approximately the same proportion of **productive forests** containing non-native species with due regard to biodiversity, landscape and other land-use interests;
- e) Expand the existing areas of **sub-alpine scrub** and target other suitable areas for replanting; and
- f) Maintain the woodland **inventory** set up by the Forest of Spey project.

Left: Anagach woods in winter © DAVID GOWANS

3.3 Priorities for Strath Avon, Glenlivet and Strathdon

These valleys are smaller in scale than Strathspey and Deeside and in this respect have more similarities with the Angus Glens. The existing woodland cover is quite diverse with native broadleaves dominant in Strath Avon and Glenlivet and with pine also present in Strathdon. Large isolated plantations of non-native conifers are present in Strathdon, Glen Buchat and the western end of Glen Rinnes.

In addition to the overall priorities for the Cairngorms National Park as a whole, the following relate particularly to Strath Avon, Glenlivet and Strathdon:

- a) Encourage the phased planting of **new native pinewood** with broadleaved components on appropriate sites;
- b) Develop opportunities for enhancing **riparian woodlands** and improving habitat networks by replacement of stands of non-native with native, in particular broadleaved, species; and
- c) Develop potential for forest habitat network **connectivity with the Deeside forest**.

Below: Non-native riparian forest, Strathdon © WILL BOYD-WALLIS



3.4 Priorities for the Deeside Forest

This area already has a high percentage of woodland cover, from Linn of Dee downstream and, like the Forest of Spey, is dominated by native species. Extensive stands of Scots pine woodlands are dominant in the upper catchment, whereas with the exception of the birchwoods at Crathie and Morrone, native broadleaves are concentrated downstream of Cambus o' May. The Deeside Forest Initiative, involving private and public interests, stimulated a range of recommendations which are broadly encompassed by these priorities, but should be referred to.

Below: Regenerating native Scots pinewoods, Glen Tanar, Deeside © ANKE ADDY



In addition to the overall priorities for the Cairngorms National Park as a whole, the following relate particularly to the Deeside Forest:

- a) Conserve and enhance the predominantly **native character** of the Deeside Forest;
- b) Restructure existing pine woodlands to create woodlands with an **enhanced nature conservation and landscape value**, whilst sustaining timber production;
- c) Encourage small-scale **broadleaved woodland regeneration or planting** projects on suitable sites where ground flora indicates remnant native woodland;
- d) Encourage the establishment of **new native pinewoods** with a varying broadleaved component in higher ground (pine-birch areas), especially where this would facilitate forest connectivity between river catchments;
- e) Develop potential for forest habitat network **connectivity with the Avon** catchment;
- f) Retain approximately the same proportion of **productive forests** containing non-native species, with a preference for the lower ground, and with due regard to biodiversity, landscape and other land-use interests or objectives; and
- g) Establish conditions to allow the development of **sub-alpine scrub** and a natural tree-line in the upper catchment in targeted areas.

3.5 Priorities for the Angus Glens

Woodland cover is low, particularly in the east, but there are numerous large plantations towards the west of the Angus Glens. The current woodland resource has a much bigger proportion of non-native species than in the three sub-areas to the north, reflecting the different history of land-use and woodland development.



In addition to the overall priorities for the Cairngorms National Park as a whole, the following relate particularly to the Angus Glens:

- a) Revitalise and expand the existing **birch woodland** resource through grazing control, re-spacing and the removal of invasive, non-native tree and shrub species where appropriate;
- b) New **broadleaved planting** on valley sides to encourage integration between existing woodlands in the wider landscape;
- c) Encourage small-scale broadleaved woodland expansion on agricultural land which would contribute to **habitat networks** along the highland boundary fault, maintaining important open ground habitat for birds; and
- d) Restructure existing **coniferous plantations**, where site conditions permit, with appropriate native tree species; softening edges to enhance landscape.

Left: Overlooking plantations in Coire Fee, Glen Doll, Angus © CNPA



4.1 Cairngorms National Park

The Cairngorms National Park was established in 2003. The National Parks (Scotland) Act 2000 (Scottish Parliament, 2000) defines four aims for Scottish National Parks:

- To conserve and enhance the natural and cultural heritage of the area;
- To promote the sustainable use of the natural resources of the area;
- To promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public; and
- To promote sustainable economic and social development of the area's communities.

The Cairngorms National Park covers 3800 sq km and comprises four local authority areas – Highland, Aberdeenshire, Moray and Angus.

4.2 The Cairngorms National Park Plan

The Cairngorms National Park Plan has been developed and will be implemented through a wide range of partners and stakeholders, including local authorities, public agencies, land managers, businesses, communities, non-governmental organisations, voluntary groups and other interest groups. All have a significant influence in managing the Cairngorms National Park and will be vital to delivering the Plan.

The Park Plan is based around three themes:

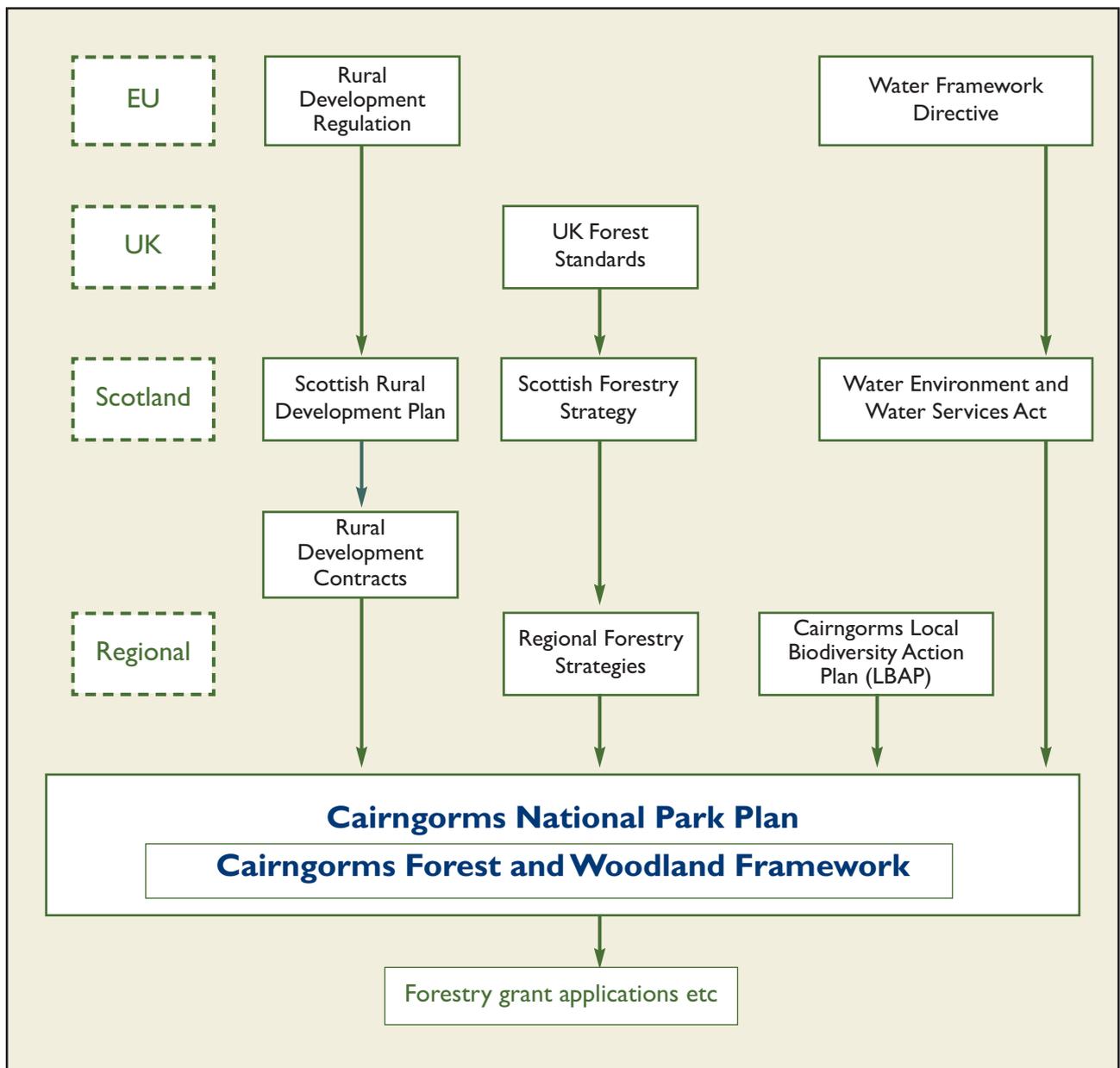
- **Conserving and enhancing the Park** – conserving and enhancing the special qualities of the National Park, and ensuring the sustainable use of its natural and cultural resources;
- **Living and working in the Park** – bringing a renewed focus to sustainable development in the area, building on the existing links between the economy, the natural environment and communities; and
- **Enjoying and understanding the Park** – the promotion and management of outdoor access, recreation and visitor services; building appreciation for the Park's special qualities.

The Park Plan Strategic Objectives for Forest and Woodland Management are reiterated in the Strategic Objectives section of this Framework (see p 11).

4.3 Summary of Policy Drivers

Figure 4.1 below summarises the main policy developments and drivers at European Union (EU), national and regional levels.

Figure 4.1 – The main policy drivers for the Cairngorms Forest and Woodland Framework



4.4 Rural Development Regulation

The implementation of the future Scottish Rural Development Programme under the Rural Development Regulation (RDR) will be critical in influencing the outcomes of the Cairngorms Forest and Woodland Framework. It is anticipated that there will be a number of proposed measures within Rural Development Contracts that will provide a range of benefits connected to forest and woodland management.

4.5 Scottish Forestry Strategy

Particularly important for future woodland management development in the Park are recent policy changes which have taken place in the forestry sector. These include the revision of the UK Forest Standards, the Scottish Forestry Strategy (SFS) and the Scottish Forestry Grant Scheme.

The Scottish Forestry Strategy is a highly comprehensive document set out in seven themes which are also reflected and further supported in the Cairngorms Forest and Woodland Framework:

- Climate change;
- Timber;
- Business development;
- Community development;
- Access and health;
- Environmental quality; and
- Biodiversity.

There are three desired outcomes set out in the Scottish Forestry Strategy. A summary of the objectives aimed at delivering each of these is set out in Figure 4.2 opposite:

Figure 4.2 – Scottish Forestry Strategy, Summary of Objectives

Outcomes	Objectives
Improved health and well-being of people and their communities.	Assist community participation.
	Enhance opportunities for health and enjoyment.
	Contribute to growth in learning and skills.
Competitive and innovative businesses contributing to the growth of the Scottish economy.	Develop a more efficient and competitive timber supply chain.
	Increase the contribution of forestry to tourism.
	Support the development of markets for forest products.
	Facilitate rural business diversification and development.
High quality, robust and adaptable environment.	Help to tackle climate change.
	Protect and promote the historic environment and cultural heritage.
	Contribute positively to soil, water and air quality.
	Contribute to landscape quality.
	Help to protect biodiversity.

4.6 Cairngorms Local Biodiversity Action Plan (LBAP)

The Nature Conservation (Scotland) Act 2004 places a duty on local authorities and agencies to further the conservation of biodiversity and includes specific requirements for designated sites. Published in December 2002, the Cairngorms LBAP sets out the targets and objectives for biodiversity in the Cairngorms. It lies within the context of the Scottish Biodiversity Strategy which aims to 'conserve Biodiversity for the health, enjoyment and well being of the people of Scotland now and in the future'. A requirement of the Scottish Biodiversity Strategy is for the decline in biodiversity to be halted by 2010.

The Cairngorms LBAP defines nine woodland habitats: broadleaved, birch, aspen, upland oak, upland mixed ash, wet or riparian, montane scrub, planted conifer and native pine. It identifies six key biodiversity issues affecting woodland management for biodiversity in the Cairngorms; the most significant of which is habitat loss and fragmentation.

The following are the Cairngorms LBAP aims and objectives relating to woodland management:

- Maintain the extent and habitat quality of all ancient and semi-natural broadleaved woodlands and expand broadleaved woodlands, particularly with new native woodlands linked to existing woods;
- Maintain and enhance the structure and wildlife interest of native pine woodlands and encourage natural regeneration in core areas aiming to restore degenerated areas and to bring them into appropriate management;
- Focus the expansion of native woodlands towards connecting isolated stands and thereby support functional forest habitat networks; and
- Ensure no net loss in the number and/or range of key UK Biodiversity Action Plan species associated with woodlands in the Cairngorms.

In addition to the woodland habitats, montane scrub species (juniper and woolly willow) are highlighted as requiring particular attention.

4.7 Species Action Framework

The Species Action Framework (SNH, 2007) sets out a strategic approach to species management. This strategy identifies a ‘Species Action list’ of 32 species where new, focussed effort and resources, over the next five years, could make the most difference to biodiversity.

A number of these are of particular relevance to forest and woodland management in the Cairngorms National Park and are listed in Figure 4.3:



Figure 4.3 – Cairngorms forest habitat species requiring targeted management action

Vertebrates – native
black grouse
capercaillie
red squirrel
Scottish wildcat
Vertebrates – formerly native
European beaver
Invertebrates – native
pearl-bordered fritillary butterfly
pine hoverfly
Plants and fungi – native
intermediate wintergreen
small cow-wheat
woolly willow
Invasive non-native species
grey squirrel
Others
hen harrier
red deer
roe deer

Left: Scots pine flower © DAVID GOWANS

4.8 Indicative Forestry Strategies

At the regional level, local authorities have developed their own regional forestry strategies, eg the Highland Forest and Woodland Strategy, the Moray Forest Strategy and the Forest and Woodland Strategy for Aberdeenshire and Aberdeen.

These regional forest and woodland strategies are used for the assessment of grant applications (in conjunction with the Cairngorms Forest and Woodland Framework) and are thus of particular importance.

4.9 Highland Forest and Woodland Strategy

The Highland Forest and Woodland Strategy (Highland Council, 2004) includes six key principles:

- Identify opportunities for forest and woodland expansion compatible with other interests;
- Improve existing forests/woodlands to enhance forestry's contribution to the economy and environment;
- Increase the community benefit from forestry and woodlands;
- Work with the industry to help overcome transport infrastructure issues;
- Retain and enhance the level of funding for forestry; and
- Ensure and enhance sustainability.

It also includes five key themes:

- Expansion of productive forest;
- Expansion of native woodland, particularly in areas of higher natural heritage value or important areas for recreation;
- Measures to increase community benefits from forests;
- Enhancement of the region's attractiveness for tourism and recreation via woodland development; and
- Improvement of the infrastructure for forestry and local processing.

The Cairngorms National Park is highlighted in the Highland Forest and Woodland Strategy as an important case study for the creation of tree-line woodland, supported by better control of numbers of deer and sheep. It is also highlighted as one of the focus areas for 90 per cent funding, rather than only 60 per cent.

4.10 Moray Forest Strategy

Priorities for action in the Moray Forest Strategy (Moray Council, 2003):

Objective	Key themes	Priorities for action
Support the local economy	Economy	Supporting and encouraging the existing forestry industry and promoting competitiveness and a higher quality product.
		Encouraging new forestry planting to support the rural economy of Moray.
		Support the Grampian Forest and Grampian Woodland Company.
	Timber production and local infrastructure	Promote further use of rail and sea to transport timber and work in partnership to identify and strengthen agreed forestry extraction routes.
	Agricultural land	Promote sensitive forestry on marginal farmland.
		Promote the ecological and farming benefits of greater integration of farm and forest land.
Conserve and enhance the environment	Nature conservation	Conserving and enhancing important habitats and species and achieving an appropriate balance between woodland and other land uses.
		Enhancing the socio-economic and environmental value of forests by adopting the principles of sustainable management as contained in the UK Forestry Standard.
		Raising awareness of deer problems and promoting a new Moray Deer Management Group through the Deer Commission.
	Landscape character	Restructuring existing forests to introduce diversity into the landscape.

Priorities for action in the Moray Forest Strategy (Moray Council, 2003) (*continued*):

Objective	Key themes	Priorities for action
Conserve and enhance the environment (<i>continued</i>)	Water quality and river catchments	Encourage the management of existing and planting of new riparian woodlands to improve water quality and encourage new habitats.
	Native woodlands	Promote an increase in the proportion of native species in new forestry proposals and expand existing native woodlands.
Enhance the quality of life of communities	Countryside Around Towns	Promote new native woodland planting within Countryside Around Towns (CAT) for landscaping, biodiversity and public access.
	Recreation and tourism	Develop the potential that Moray's forests offer for responsible access in partnership with Forest Enterprise and private landowners and promote further development of recreational infrastructure.
		Promote opportunities within Moray to develop the tourism potential of the woodland and forest industry.
Community involvement	Review the Moray Community Woodland Plan.	

The Cairngorms National Park has been identified in the Moray Forest Strategy as a priority area for the expansion of native woodland on designated Sites of Special Scientific Interest.

4.11 Forest and Woodland Strategy for Aberdeenshire and Aberdeen

For Aberdeenshire and Aberdeen City the main aim of the regional strategy is to ensure the sustainable management of the woodlands and forests of Aberdeenshire and Aberdeen City (Aberdeenshire Council, 2005).

Sustainable management of woodlands and forests is described as creating a balanced landscape where woodlands and forests fulfil social, economic and environmental objectives, such as adding to people's quality of life and well being, providing opportunities for recreation and tourism, contributing to the local economy and enhancing biodiversity and the environment

In line with the main aim, 11 key themes have been identified in the strategy, including monitoring the strategy, and, particularly relevant for this report, local priorities have been defined for management and restructuring of woodlands and for new planting.

Key themes and local priorities are:

- Managing and restructuring existing woodlands;
- Creating new woods and forests;
- Deer management and development of the forest resource;
- Nature conservation, protecting and enhancing biodiversity;
- Maintaining water quality and enhancing river catchments;
- Renewing landscapes;
- Archaeology;

- Supporting the local economy;
- Supporting community woodlands;
- Supporting education, recreation and tourism; and
- Monitoring this strategy.

Local priorities for restructuring and management are:

- Restructuring extensive Scots pine stands to develop stands of mature trees with potential for regeneration;
- Restructuring large, even-aged coniferous forests (Sitka and Norway spruce);
- Exploring the potential to restore Ancient Woodland Sites planted with exotic conifers;
- Management to improve timber quality;
- Exploring alternatives to clearfell;
- Implementing long-term planning through Forest Plans;
- Improving management of broadleaved woodlands for habitat and amenity;
- Improving management of urban/amenity woodlands for access and recreation; and
- Improving management of shelterbelts.

Local priorities for new plantings are:

- Agricultural diversification to create well designed productive forest;
- Expansion of native pine woodland;
- Creation/expansion of semi-natural woodland following UK and Local Biodiversity Action Plan (LBAP) priorities;
- Expansion of native riparian/floodplain woodland;
- Creation and expansion of woodland close to settlements and existing community woodlands;
- Reinforcing, extending or establishing new woodlands around new developments;
- Linking existing woodlands and increasing size of existing woodlands; and
- Creation and expansion of shelterbelts.



Left: Transporting timber in the Park © CNPA/STEWART GRANT

In relation to the area covered by the Cairngorms National Park, the Aberdeenshire Strategy specifically points to issues for native woodland expansion in upper Deeside. Referring to the study 'A Forest Habitat Network for the Cairngorms (Scottish Natural Heritage, 1998)' the strategy points out that a (minimum) target of 30 per cent woodland cover, which would allow the forest habitat to function as an extensive, well-connected forest, requires natural regeneration and may also involve the restoration of ancient woodland sites which have been planted with non-native conifers. Connectivity of woodland habitat is essential to provide extensive habitat for species such as woodland grouse. In addition good quality pine would allow a continuity of supply to provide a commercial market.

The Aberdeenshire Strategy also highlights a number of problems in establishing woodland cover in this area. Expanding native pine woodlands will result in regeneration on some moorland sites, this must be balanced with maintaining large blocks of moorland habitat. Generally, conditions are difficult for woodland expansion, and development of any woodland is a long-term commitment. Grazing pressure is high and a serious reduction in deer numbers is required. Finance is also a factor as these woodlands are unlikely to repay their costs in economic terms.

4.12 The National Forest Land Scheme

Specifically with respect to forests, woods, open land and other property managed by Forestry Commission Scotland (National Forest Land), the National Forest Land Scheme (NFLS) was introduced in 2005 (Forestry Commission, 2005b). The National Forest Land Scheme is divided into three main parts:

- Community acquisition;
- Land for affordable housing; and
- Sponsored sale of surplus land.

Community acquisition provides the opportunity for communities to buy or lease National Forest Land. The Land Reform (Scotland) Act 2003 provides the benchmark for community acquisition of National Forest Land. Although generally based on the principles of Community Right to Buy, the NFLS aims to provide a more flexible approach for the purchase or lease of land managed by the Forestry Commission Scotland.

The NFLS also aims to make land available for affordable housing by allowing Registered Social Landlords (housing associations) and other housing bodies to buy National Forest Land, focusing on areas with recognised housing shortages. In addition, the NFLS allows communities and others to buy surplus land that makes little net contribution to Forestry Commission Scotland's public policy objectives.

4.13 The Deeside Forest

A partnership of private landowners, local authorities and agencies produced working group recommendations for the conservation and enhancement of the Deeside Forest (Deeside Forest Working Group, 1998). These included the overall aim:

'To maintain, expand and enhance the Deeside Forest as a multipurpose forest resource providing timber production and other economic benefits, in conjunction with nature conservation, sporting use, landscape value, water quality, recreation and amenity.'

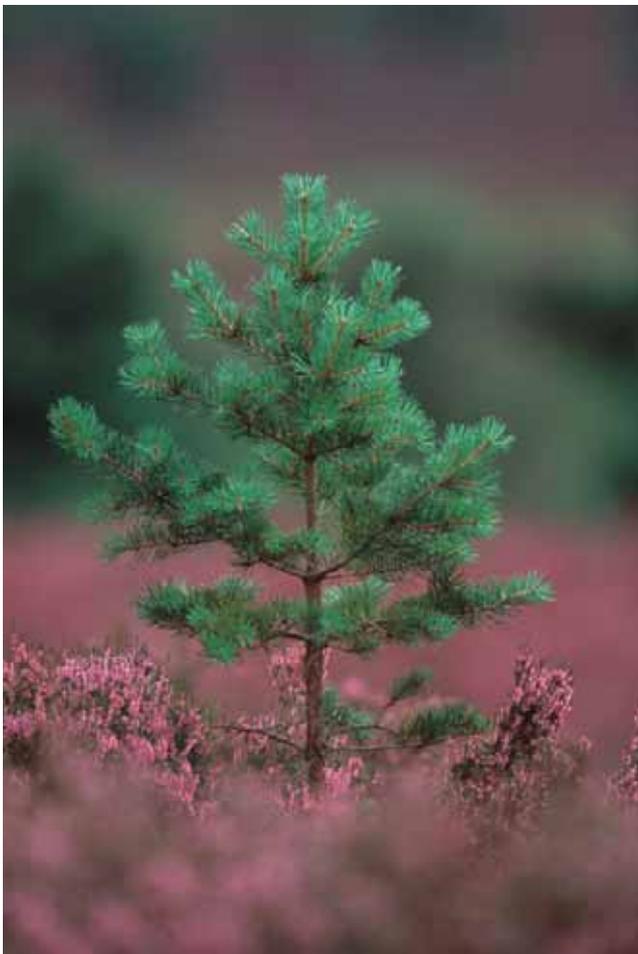
The Deeside Forest Working Group has made a total of 28 recommendations directed at achieving this aim (Deeside Forest Working Group, 1998).



Right: Balmoral Castle & upper Deeside © DAVID GOWANS

4.14 The Forest of Spey

This initiative led to a number of practical projects and research, some of which continue today. For example, research into the distribution of aspen, with a view to enhancing habitat networks for associated threatened species, is ongoing and likely to expand across the Park. Research into achieving better utilisation and maximising the potential for marketing Scots pine and improving the competitiveness of local sawmills is continuing. The research has focused on laminating Scots pine falling boards and achieving higher machine grade settings for Scots pine.



4.15 The Capercaillie LIFE Project

This project ran from 2002 to 2007, covering 40,000 hectares of forests, much of which are contained in the Cairngorms National Park. The main areas of work were habitat enhancement and expansion, planning and co-ordination of those who are involved, monitoring and studying responses to habitat management works and project promotion and dissemination. Following on from the LIFE project, there is considerable motivation among agencies and forest managers to continue with a similar funding mechanism that will help to deliver more for the Caledonian Forest Habitat Networks in the Cairngorms.

Left: Young Scots pine tree © NEIL MCINTYRE

RATIONALE

This section provides further explanation and justification for important elements in the priorities outlined in the previous sections.

FOREST HABITAT NETWORKS

It has become increasingly recognised that there is a need to enable species to adapt to changes brought about through climate change and habitat depletion. Corridors and stepping stones between forest habitats are extremely important for species to be able to adapt and survive. In all areas the enhancement of the forest resource and forest habitat networks will be evaluated against the impacts on other important farmland and moorland habitats. New models such as BEETLE (Biological and Ecological Evaluation Tools for Landscape Ecology) are now being used to help direct management where it is needed most and to ensure that habitat networks between other important habitats are also enhanced.

The expansion of native woodland in the Cairngorms National Park will focus on areas which will give the best advantages in terms of habitat networks and links, particularly among and between the existing core areas of Strathspey and Deeside. This may necessitate the enhancement of linkages outside the Park to improve the networks within it.

Enhancing the sequence of woodland types from riparian woods, oak/birch, pine/birch, and sub-alpine scrub in more areas will enhance landscape character and benefit biodiversity. With improved models for planning habitat networks there may also be opportunities to restore ground to moorland, particularly where inappropriate and unproductive forest planting has taken place in the past.

Forest Habitat Networks in the Forest of Spey

Much of the Forest of Spey is under predominantly Scots pine woodland. In the long-term, restructuring of even-aged, dense forest stands, natural regeneration and planting to enhance appropriate linkages, will produce a much more uneven age structure throughout the forest and will increasingly meet the needs of a forest habitat network. Restructuring has already started in some places and extension of this practice to other areas has been identified as an important catalyst to considerably enhance any less sympathetically located and shaped plantations in this area.

Forest Habitat Networks in Strathdon and Glenlivet

Strathdon and Glenlivet lie between the core forest areas of the Forest of Spey and Deeside and are therefore fundamental to any objective of establishing a major Forest Habitat Network around the north-east of the Cairngorms. Enhancing the potential for developing these connections would not only be highly significant in terms of linking currently separated areas of forest, but would also serve to help restore currently extremely rare areas of high altitude woodland scrub.

Forest Habitat Networks in the Deeside Forest

There is considerable potential for natural regeneration of native forest habitats in the lower ground of the valley. Most of the potential expansion is suited for either pine or birch, with a smaller proportion suited to both. There is potential for wider expansion onto open hill ground, in the absence of other constraints such as grazing pressure and heather burning.

There is considerable scope for the creation of extended pine habitat networks, both within Deeside and into neighbouring areas, by targeted planting of new native pinewoods. The link which offers the most potential for establishing a long-distance pine habitat network is via Glen Gairn and Strath Avon. With careful monitoring and grazing management, this can be achieved with the incorporation of other high-value open habitats such as calcareous grasslands in Strath Avon.

Angus Glens

The potential for forest connectivity between glens is limited by unsuitable growing conditions at higher altitudes. In order to enhance connectivity as part of a forest habitat network, woodland expansion needs to be focused in the lower, agricultural reaches of the glens. Given the economic and ecological value, eg for breeding waders, of this agricultural land, woodland expansion will be a lower priority and will require extra sensitive design.

Networks can only be achieved within each glen, and between each glen at their lower ends along the Highland Boundary Fault. Scattered throughout the lower and mid slopes of the glens, there are numerous sites where the soils are naturally poorly drained, eg at Balnaboth in Glen Prosen and Glen Moy above Glen Clova.

These areas offer opportunities to plant species more amenable to wet conditions, such as alder, birch and willow on sites with mineral soils.

Below: enjoying Anagach Woods, Grantown-on-Spey © CNPA/STEWART GRANT



BIODIVERSITY AND LANDSCAPE

Native, and especially ancient, semi-natural woodlands have high biodiversity and historic value. Fragmentation poses a serious threat to their biological richness and to the species that depend on them. A number of key species such as red squirrel, capercaillie and black grouse require special protection and habitat management intervention if they are to survive. Significant biodiversity gains will be achieved through restructuring non-native forests to incorporate a more diverse range of species, with a broader age structure and variable tree densities.

The distinctive and varied landscape character of the Cairngorms National Park derives from the combination of mountain plateaux, extensive forests, open moorlands, straths, lochs and rivers, together with the settlements, farmland and designed landscapes. It is one of the most distinctive special qualities of the Park, and its importance is recognised by two National Scenic Areas and the subsequent designation of a wider area as a national park.

The landscape is a product of both the natural environmental conditions and the history of land-use, expressing both the natural and cultural heritage of the Park. The conservation and enhancement of the Cairngorms National Park's landscapes will therefore be influenced by many activities and processes, guided by a range of objectives detailed in the Park Plan.

The greatest landscape challenges are excessively large areas of clearfell (eg more than 50 hectares) and sharp-lined forest edges, exacerbated by poorly designed/located fence lines or blocks of forestry.

Alternatives to clearfell and variable thinning regimes should be encouraged. The use of fencing in forest establishment needs to be assessed against the joint agency guidance on deer fencing to ensure the influence on the landscape is positive. New forest management guidelines should also help to enhance landscape through the forest management planning process.

Some angular plantations are of an inappropriate scale and contradict markedly the rounded nature of the surrounding landscape. There are opportunities to reshape the edges of some of these and to encourage the broadleaved wooded areas of the lower ground to expand or link with these plantations, again to help soften some edges.

SUB-ALPINE AND MONTANE SCRUB

Montane scrub, a much-reduced and very rare habitat in Scotland, is a priority habitat identified in the Local Biodiversity Action Plan requiring urgent attention. Given optimum conditions, there are a number of areas where the full sequence of zonal woodland types – oak-birch, pine-birch, sub-alpine scrub and montane scrub – could be extended.

The west and north facing slopes of the Cairngorms offer some of the best opportunities for establishing and extending the natural tree line with sub-alpine scrub – the best example of which survives at Creag Fhiaclach. A significant start has been made at Glenmore where Forest Enterprise already has plans to enable sub-alpine scrub to develop in association with pine and birch in lower altitudes. A number of the Framework objectives, notably those associated with conservation of biodiversity, landscape and timber production, would be enhanced should the full altitudinal sequence of woodland types be established in more areas.

In the upper Dee catchment, grazing management strategies would need to be devised which would encourage the formation of sub-alpine scrub and a natural tree line. This would complement similar initiatives in the Forest of Spey. In both areas, the change in land cover would have gradual implications for both fire and deer control in the long term, and both are aspects which will require monitoring and planning.

MOORLANDS

Moorlands cover approximately 40 per cent of the area of the Cairngorms National Park – around double the area of woodland. Globally, moorland is a rare habitat and locally it is an important cultural and economic resource. Moorland has a special ecology, a fusion of native species and active land management. The purple bloom and mosaic habitat of the heather moor is, for many, one of the special qualities of the Park.



Overall, a large-scale mosaic of forest and open moorland is likely to deliver a valuable mix of benefits for biodiversity, land-use, recreation and landscape. There are considerable opportunities across the Park for enhancing the areas where forests and moorlands meet. The forest moorland edge is extremely important for species such as black grouse and capercaillie which are both in the list of eight vertebrate species identified as priorities in the Species Action Framework (Scottish Natural Heritage, 2007).

However, in most areas the existence of moorlands is derived from forest clearance dating back many years and to some extent acts as a barrier between existing woodland habitats for some species. Poorly executed, uncontrolled muirburn can threaten adjacent forests, yet it is recognised that, conversely, managed fires can play an important role in the prevention of the spread of potentially catastrophic wild fires.

Restoration of forests in some less ecologically, socially or economically important areas of moorland may be appropriate. Final decisions on the locations for managing forests and moorland can only be made by the land managers. Across the Cairngorms National Park land managers will be encouraged to work collectively to increase the carrying capacity and functional connectivity of both forests and moors.

ASPEN

Although aspen is one of the most widespread tree species in Scotland only an estimated 160 hectares of aspen woodland now remains – primarily in Strathspey. It occurs mainly as small, isolated and fragmented stands, with few stands larger than one hectare.

Little attention was paid to this species until recently, however its importance for biodiversity is now increasingly appreciated. Aspen is host to many specialist species, including five UK Biodiversity Action Plan species. The dependency of these specialists on aspen indicates a very long ecological association.

Perhaps because of aspen's historical decline, many of these species are rare and/or little known. Some, such as the bracket fungus *Phellinus tremulae*, were only recently recorded in the UK; while between 2000 and 2004 eight lichen species new to Britain were found on Scottish aspen. Continuing research is revealing the exceptional contribution which aspen makes to the biodiversity of Scotland's woodland.

The restoration and expansion of aspen woods is to be encouraged. A project designed to improve the management of existing aspen stands and develop aspen habitat networks is being managed by the Highlands Aspen Group, Scottish Native Woods and the Local Biodiversity Action Plan.

AGRICULTURAL LAND

In many areas there is potential for birch regeneration and production of wood fuel on agricultural land, but large-scale conversion of agricultural land to woodland is not intended. Small-scale, well designed planting prioritised on sites retaining woodland soils and flora, would help diversify farmers' incomes, provide shelter and a timber supply and contribute to a greater connectivity between existing woodlands. Diversification into woodland management can also bring opportunities for increasing the wood-fuel resource, increased tourism and recreational opportunities, as well as enhancing the landscape by screening other development such as housing, quarries etc.

RIPARIAN WOODLANDS

Management and further establishment of riparian broadleaved woodlands, ie woodland adjacent to water courses or water bodies, is encouraged. This fulfils a number of objectives, not least contributing towards broadleaved forest habitat networks, but also has an increasingly important role in flood alleviation by reducing run-off rates and enhancing habitats for a range of priority LBAP species. By their very nature riparian woodlands form natural corridors which fit naturally within the landscape. They would also contribute to the establishment of localised networks of broadleaved woodland.

NON-NATIVE SPECIES

In order to meet economic and employment objectives, the inclusion of non-native species for 'productive' forestry is advantageous. In some circumstances non-native species can play a role in enhancing overall biodiversity and benefit specific key species, eg Norway spruce for red squirrels and larch for capercaillie.

The expectation is that the proportion of non-native to native species will remain close to its current level across the Cairngorms National Park, although this varies considerably between different areas. The policy in the Deeside Forest and the Forest of Spey is that the proportion of non-native species should not exceed the current 15 per cent level. Allowing the proportion of non-native species up to its current level will help maintain a sustainable supply to the timber processing industry in addition to that derived from Scots pine.

For a number of reasons, eg better soils and increased shelter, the most appropriate areas for non-native species are within the more managed parts of the valley floors and sides. Where possible, care should be taken to match species to site conditions, eg Sitka spruce with gley soils provided there is no detriment to valuable wetland habitats.

Incorporating a greater proportion of native species within non-native forests is most appropriate in the localities where the enhancement of landscape and native forest habitat networks is a priority.

TIMBER AND OTHER FOREST PRODUCTS

Forest management and the marketing of timber through sawmills represent major sources of employment in the Cairngorms National Park; it is important that this is maintained. There are opportunities for the branding and improved marketing of high quality local forest products distinctive to the Park, provided they are grown in accordance with the high environmental standards for which the Park will become recognised.

Expanding the use of wood fuels for domestic and community heating appliances is to be encouraged. This is especially useful for providing opportunities for triggering the management of otherwise unviable forests, making use of waste materials and encouraging more planting of hardwood species.

Native species, particularly Scots pine, need to be developed as high quality timber products, distinctive to the Cairngorms, in order to reduce a dependency on species which may be less beneficial in other ways. There is a need to enhance the existing processing capacity and supply chains and further potential for developing small-scale processing, thereby adding value to local timber.

RECREATION AND COMMUNITY INVOLVEMENT

There is an exceptional range of high quality outdoor access and recreation opportunities in the Cairngorms National Park.

Well managed access contributes significantly to important public policy agendas, including social inclusion, health and transport and improving overall quality of life.

The successes of community groups involved in initiatives such as the Anagach Woods Trust and Explore Abernethy in Speyside speak volumes about the value of community involvement. Local communities engaged in the management and enjoyment of their forests inevitably gain a greater sense of ownership and personal responsibility for their local resources.

Right: Erecting wildlife viewing hide at Blairfindy
© CNPA/STEWART GRANT



MAPS

Notes on interpreting the Forest Habitat Network maps

The information provided on the four following maps (pp42 - 49) was put together by Forest Research.

The purpose of the maps is to illustrate the range of areas where species specialising in forest and woodland habitats are most likely to occur and are able to disperse.

This is of value in helping to assess the most appropriate locations for encouraging various types of forest and woodland enhancement and/or expansion, whilst supporting other habitat networks such as moorland and wetland.

The maps were developed through the use of BEETLE (Biological and Ecological Evaluation Tools for Landscape Ecology), Watts et al (2005). BEETLE evaluates the connectivity of landscapes against the requirements of a range of generic focal species.

The connectivity was assessed using generic focal species with three dispersal ranges:

- Dispersal limited species able to disperse 250 metres;
- Moderately mobile species able to disperse 500 metres; and
- Mobile species able to disperse 1000 metres.

The following provides a summary of what is meant by generic focal species:

- **Woodland generalists** – species that are found in all woodland types (conifer, broad-leaved and mixed) and in both plantation and semi natural examples of these. These are represented in the Cairngorms National Park by species such as the pine marten, which also has the ability to disperse readily between these woodland types.
- **Pinewood specialists** – species restricted to pinewoods. The longhorn beetle, *Acanthocinus aedilis*, is an example which has a low dispersal ability, while the red squirrel, *Sciurus vulgaris*, an example with relatively high dispersal ability.
- **Broadleaved specialists** – species restricted to broadleaved woods. The lungwort, *Lobaria pulmonaria*, is an example of a low dispersal species while the redstart, *Phoenicurus phoenicurus*, can cover much larger distances.

In practice this means that maps can be produced to show where a given species may be able to survive and move. For example a red squirrel will find it easier to pass through a pine forest than cross open moorland or the A9.

In addition, the heathland generalist map indicates the extent of the habitat networks of species primarily restricted to heathland habitats.

The range of outputs from the BEETLE model is intended to be used interactively to assist woodland grant applications and in prioritising the locating of grant funded forestry operations.



The following datasets were used to identify the woodland components of the landscape:

- National Inventory of Woods and Trees (NIWT);
- Scottish Semi Natural Woodland Inventory (SSNWI);
- Scottish Ancient Woodland (derived from two Scottish inventories: the Inventory of Ancient and Long-established Woodland Sites, and the Inventory of Semi-natural Woodlands);
- Forest Enterprise (FE) sub-compartment database;
- Native Woodland Model;
- New planting datasets – Woodland Grant Scheme 3 (WGS3), Scottish Forestry Grant Scheme (SFGS), Forest Plan (FPlan).

The non-wooded components of the landscape were derived from remote-sensed data: LCS88 and LCM 2000.

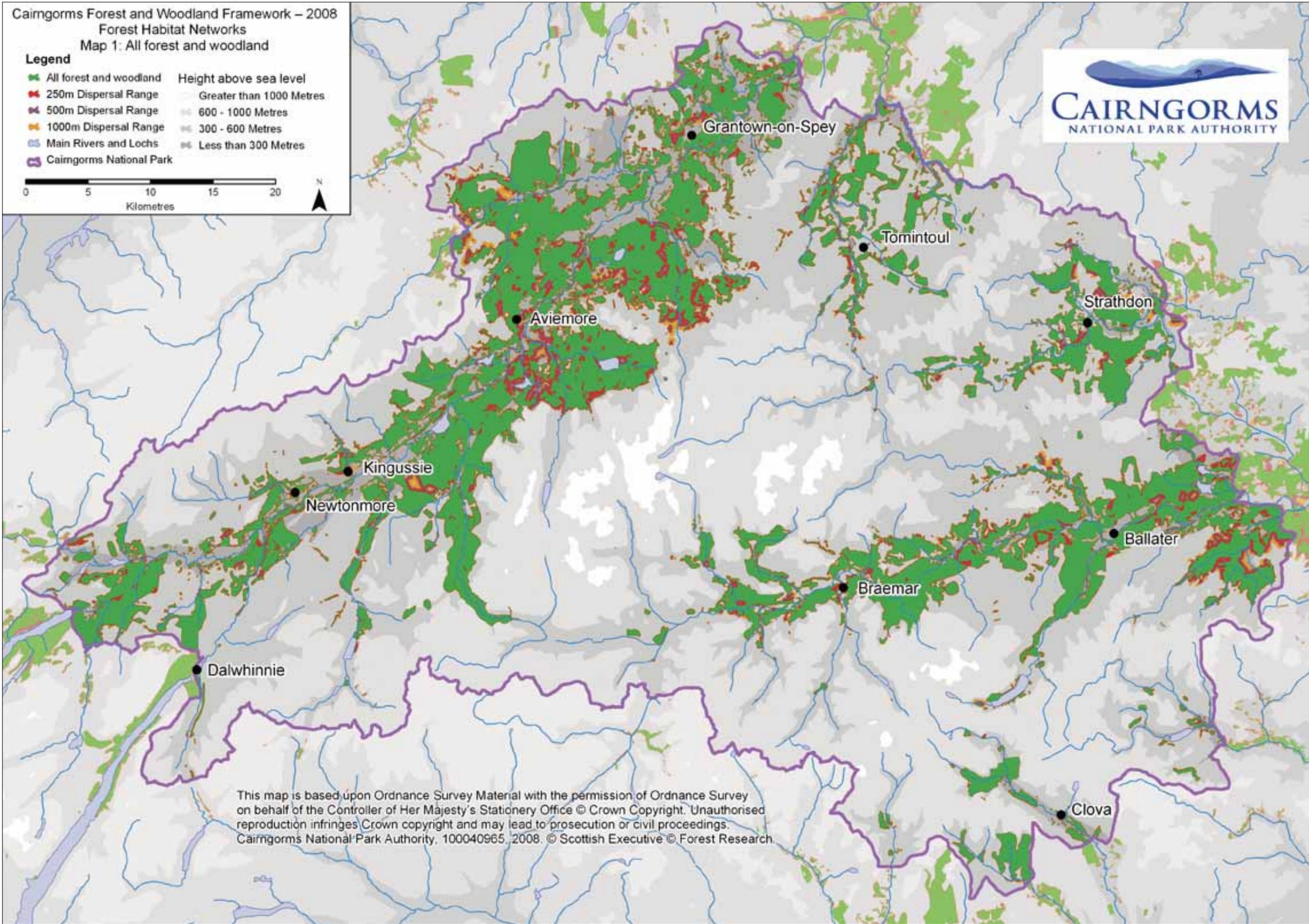
Left: Hazel catkins, Abernethy © WILL BOYD-WALLIS

Cairngorms Forest and Woodland Framework – 2008
 Forest Habitat Networks
 Map 1: All forest and woodland

Legend

All forest and woodland	Height above sea level
250m Dispersal Range	Greater than 1000 Metres
500m Dispersal Range	600 - 1000 Metres
1000m Dispersal Range	300 - 600 Metres
Main Rivers and Lochs	Less than 300 Metres
Cairngorms National Park	

0 5 10 15 20
Kilometres



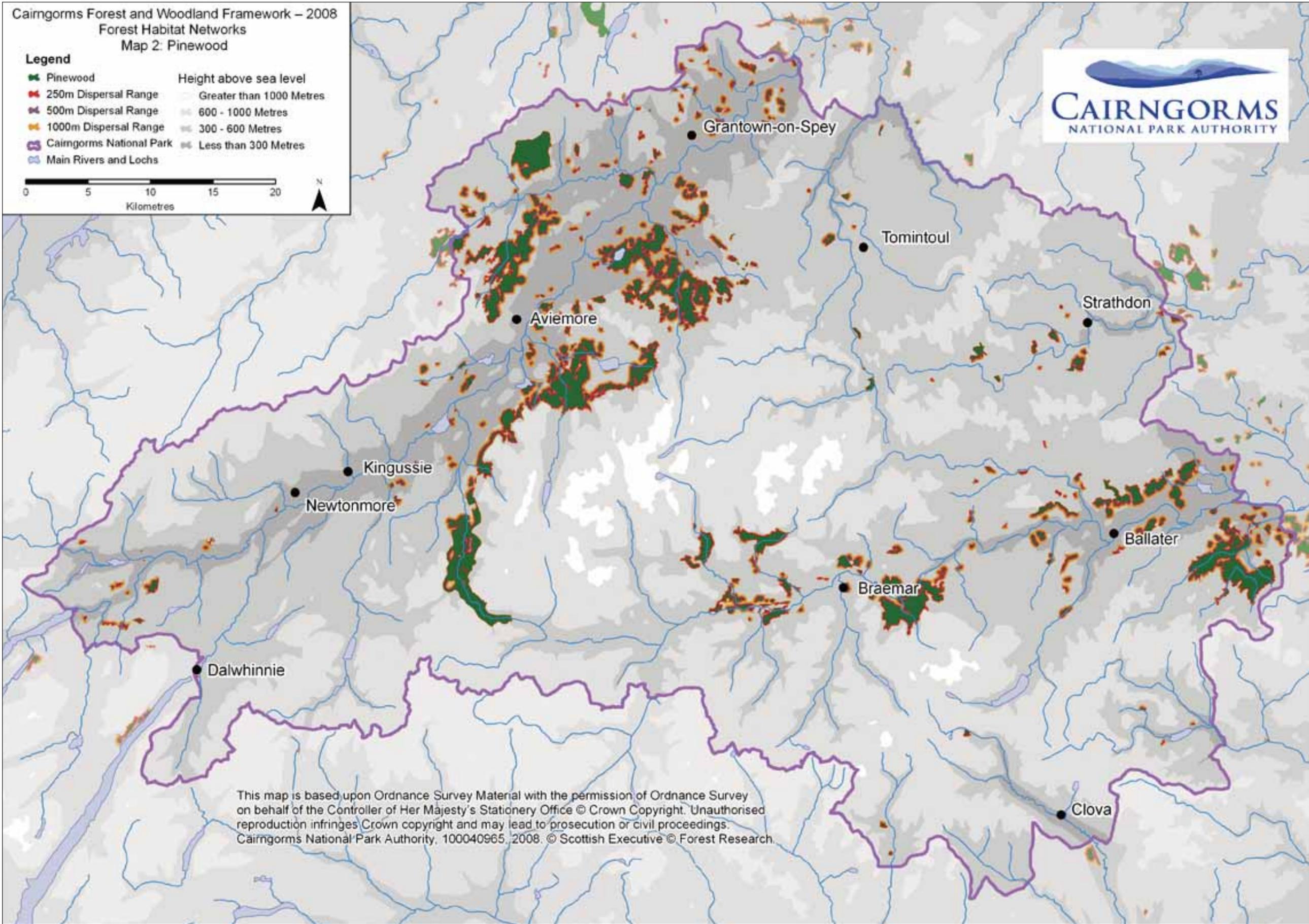
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Cairngorms Forest and Woodland Framework – 2008
 Forest Habitat Networks
 Map 2: Pinewood

Legend

 Pinewood	Height above sea level
 250m Dispersal Range	 Greater than 1000 Metres
 500m Dispersal Range	 600 - 1000 Metres
 1000m Dispersal Range	 300 - 600 Metres
 Cairngorms National Park	 Less than 300 Metres
 Main Rivers and Lochs	

0 5 10 15 20
Kilometres

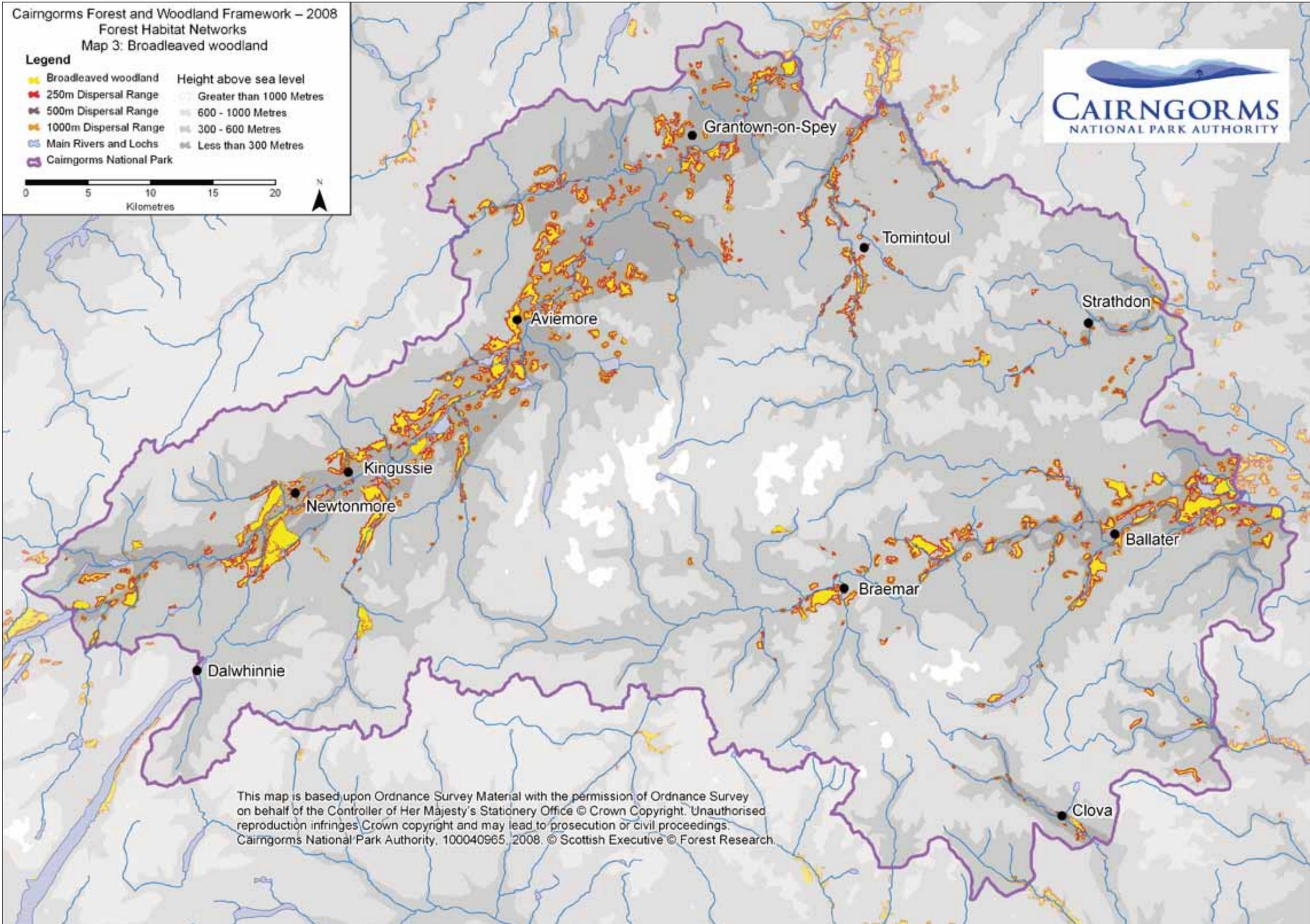
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Cairngorms Forest and Woodland Framework – 2008
 Forest Habitat Networks
 Map 3: Broadleaved woodland

Legend

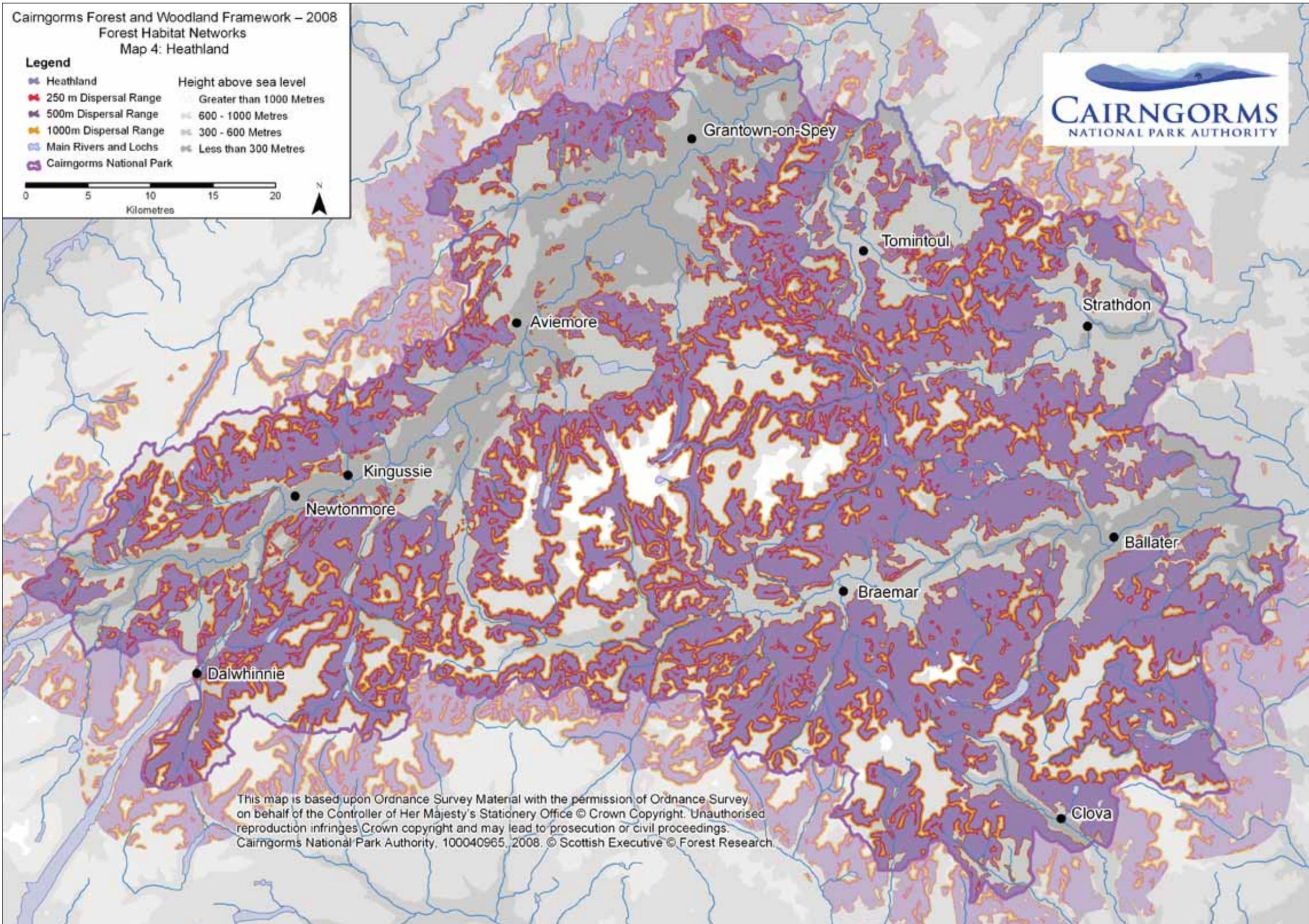
 Broadleaved woodland	 Height above sea level
 250m Dispersal Range	 Greater than 1000 Metres
 500m Dispersal Range	 600 - 1000 Metres
 1000m Dispersal Range	 300 - 600 Metres
 Main Rivers and Lochs	 Less than 300 Metres
 Cairngorms National Park	

0 5 10 15 20
Kilometres

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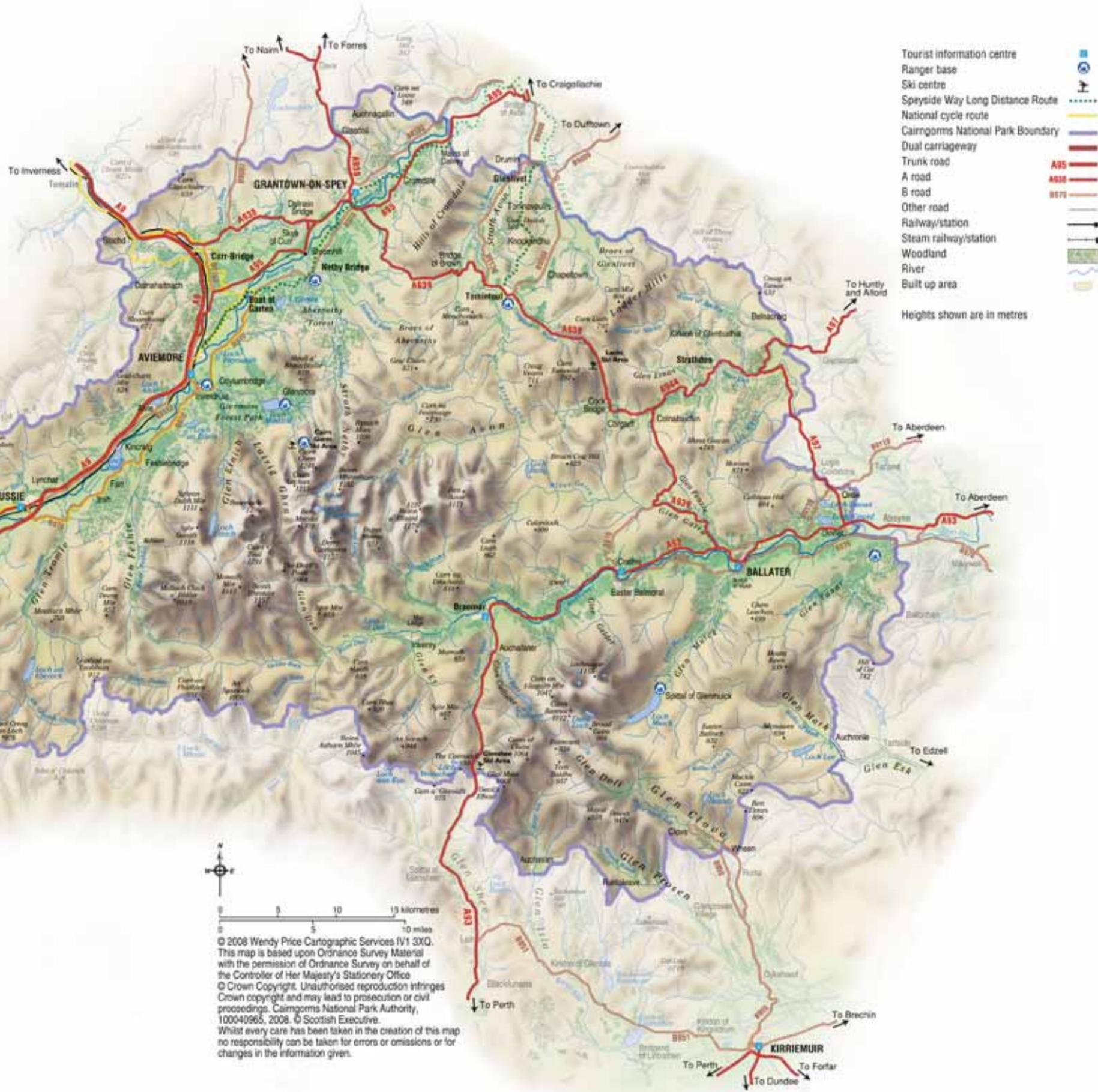
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Cairngorms National Park

This Framework provides guidance to agencies, land managers and forestry consultants on the overall strategic objectives and priorities for ongoing developments in woodland and forest management within the Cairngorms National Park. The maps included in this publication are for information only and should not be used for navigational purposes. Reproduction is prohibited without the permission of the copyright holders.





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