

DRAFT

CAIRNGORMS NATURE DRAFT ACTION PLAN

FOR COMMENT

1. Introduction	02
2. Vision	07
3. Strategy	12
3.1 Aims	12
3.2 Policy context	13
3.3 Research and data	16
3.4 Bio-security	17
4. Action	18
4.1. Woodland	18
4.2. Wetland	28
4.3. Montane, moorland and grassland	35
4.4. Involving people	41
5. Glossary	46

I. INTRODUCTION

The nature of the Cairngorms

From extensive tracts of ancient woodlands and the sparkling, clean waters of its rivers and lochs, to the high Arctic-style mountainous landscape and species-rich lowlands, the Cairngorms National Park is a haven for nature and wildlife – in all its astonishing variations.

This action plan replaces the Cairngorms Local Biodiversity Action Plan as the document for setting the way forward so that the natural heritage in the Cairngorms National Park is protected and enhanced.

It is this Plan that will shape and focus all the excellent work that's currently taking place and urge extra action where it's most needed.

A new partnership called Cairngorms Nature consisting of people with the shared goal of achieving the aims of this action plan has been established to guide, implement and review the Plan's recommendations.

A special place for people and nature

Given its national and international importance, planning for nature is essential for the future conservation, enhancement and enjoyment of the Cairngorms National Park.

To put this in perspective, whilst the National Park covers less than two per cent of the UK's landmass, it is home to a massive 25 per cent of its threatened bird, animal and plant species.

The Park also has more high-level mountain ground than anywhere else in Britain and Ireland, offering exceptional value to rare mountain plants and scarce wildlife. It has the largest Caledonian forests and is home to many uncommon species like the Scottish crossbill.

Stocks of Atlantic salmon, lampreys and other fish are supported by some of the world's purest and cleanest rivers and fine quality wetlands.

From the high up granite mountains, to the glens and straths lower down, each part of the Cairngorms National Park has both great landscape beauty and huge value for biodiversity. The sheer size of different elements of this natural mosaic adds to that worth. This rich nature also underpins a working landscape, in which land use helps shape nature, and in which nature sustains land and tourism businesses.

From local residents to the estimated 1.3million visitors it welcomes each year, one thing is clear – more and more people are engaging with and valuing nature in the Cairngorms National Park.

These people recognise the benefits they get from this special place. Whether it's living and working here or making it a domestic or international destination of choice, the National Park's high quality, natural environment makes us happier, healthier and fitter.

From a simple walk with the dog, bike ride by a loch, to extreme mountaineering, the landscapes and wildlife of the Park stimulate our senses and provide a high sense of wellbeing.

The exceptionally high quality of nature and the opportunities to enjoy it are therefore important reasons why the Cairngorms National Park was created. It guides both current work and visions for the future.

Valued by many, managed by few

The work of generations of land managers has produced the blend of different habitats we see today and their efforts continue to sustain the wildlife within them.

The way such work benefits biodiversity can be obvious at a very small scale, such as one wood, moor or farm. Add the work in many woods, moors and farms together and you get a cumulative and significant effect of high quality habitats that makes the Cairngorms National Park internationally important for nature conservation.

A very brief summary of some of the many impressive aspects of nature in the Cairngorms National Park follows. These celebrate the natural richness of the Park and the achievements of many generations of Cairngorms people who have shaped the exceptional nature so many currently enjoy and will enjoy in the future.

Woodlands

Some of the most important woodland areas in Britain dapple the hills and cloak the low ground in the Cairngorms National Park.

More than half of the surviving **Caledonian forest** (found only in Scotland) grows in the Park. Boosted by recent expansion schemes, this globally important habitat is a western outlier of the huge 'boreal' forests that girdle the northern world.

Different species of birches are the principal trees in most of the broadleaved woods in the Park. **Birchwoods** are very rich in insects, including the large and attractive Kentish glory moth, and are nationally important for fungi.

Stands of **aspen** trees, strikingly gold and yellow in late spring and early autumn, support some of the UK's rarest and most threatened lichens, and the first British discovery of the parasitic fungus, Aspen bracket, was made here in 1999.

The Park holds Scotland's largest extent of **bog woodland**, a European priority for conservation. These are excellent habitats for dragonflies, damselflies, otters and amphibians. The trees, held in check by the wet conditions, are very slow growing and include some that are centuries old.

The National Park also has the highest altitude **montane woodland** in the UK, including up to the most natural treeline in Britain, at around 640m on *Creag Fhiaclach*.

More than one-third of **conifer plantations** are on Ancient Woodland Sites and they comprise nearly half the woodland in the Park. The biodiversity value of well-managed plantations can equal that of native pinewoods.

Perfect pine needles

The conifers of the Cairngorms National Park and their healthy ground cover of native shrubs is still a vitally important refuge for the largest grouse in the world – the capercaillie – which has declined in recent years. Other grouse species in the Park include red grouse, black grouse and ptarmigan.

Both male and female capercaillie *Tetrao urogallus* grow as large as turkeys, reaching this size on a diet rich in pine needles. No other bird makes such heavy use of conifer needles as food. In summer and autumn, chicks like to eat both the blaeberrries that grow in sunnier parts of the forests and moth caterpillars that feed on those blaeberry plants.

Freshwater and wetlands

The waters of the National Park, both flowing and still, are major assets for the National Park and a huge reservoir of biodiversity. The rivers are among the longest in Scotland. Add dozens of lochs, plus numerous smaller lochans and peaty pools, and the importance of water to the overall biodiversity is clear to see.

These features include some of the highest altitude standing waters in the UK, some startlingly blue-green in the hollows of mountain corries. **Large wetlands** are also part of the picture, including the Insh Marshes – a major wetland of international importance.

On Deeside, Lochs Davan and Kinord with their associated **bogs and fens**, are havens for wintering wildfowl and for creatures such as rare water beetles to thrive.

Rivers in the Park hold nationally important populations of Atlantic salmon, arctic charr and three species of lampreys. They also have healthy populations of many kinds of invertebrates, including insects and the globally endangered freshwater pearl mussel.

Mosaics of well-managed **wetland habitats** are essential for the long-term survival of some of the most special wildlife in the Park.

Uplands

The mountains at its core gave the Cairngorms National Park its name, and it is the uplands that provide some of the most exceptional aspects of the Park's biodiversity. The sheer expanse of higher altitude ground, combined with the near natural conditions in the mountains, helps to shape the communities of scarce plants, insects, birds and animals there.

Birds, such as dotterel and snow bunting that have links to **Arctic tundra communities**, give the Cairngorms National Park exceptional UK value for scarce birds.

There are extensive tracts of '**montane**' (**alpine-like**) plant communities, including plants, insects and primitive organisms such as slime moulds and rare lichens associated only with snowbeds.

The Park has the biggest and highest tracts of **blanket bog** in the UK and large expanses of wet heath, significant bog mosses, insects and more.

Heather moorland in the uplands plays a huge part in the look and life of the National Park. It covers around 40 per cent of the land. The tones of ling, bell heather, other woody shrubs, grasses and sedges that grow in the moors are a fundamental aspect of the seasonal shifts of colour in the Park.

Slippery at the top

Slime moulds may have you fooled into thinking it's a fungus or even a soft-bodied animal but these single-celled creatures (like amoebas) have astonishing abilities to work together with others of their own kind to form complicated structures, which move, very slowly, over different surfaces.

They also have a knack of 'shape-shifting', changing appearance from a flat mass to a fruiting body that looks very like a kind of fungus. A high proportion of the entire UK population of slime moulds live high up in the Cairngorms National Park where snowbeds provide them with the ideal conditions for their weird, but undoubtedly wonderful, lives.

Tracking Highland tigers

One of the most elusive, but iconic species of Highland forests is the Scottish wildcat. Also known as the 'Highland tiger', this bushy-tailed feline is very scarce, with the entire Scottish population thought to number only a few hundred.

There has been much research work on wildcats in the Cairngorms National Park in recent years, including surveys using 'camera traps' that trigger when an animal walks past. Thanks to such work, we now know that the woods, moors and hill ground of the Cairngorms are a major stronghold for this uncommon species.

Lowlands, including farms and croft land

The low ground of the Cairngorms National Park is of enormous importance for nature because of the diversity of species living there.

As the great majority of people in the National Park live on the low ground, it is where more of them have first-hand experience of nature and importantly where they have a strong influence on it. **Farming and forestry** are key parts of how people use these lowlands. Both allow a wide range of species to live near and within settlements across the National Park.

The **farmland and grassland** habitats in the Park have often been managed in a less intensive way than in other parts of the UK. Their current value for biodiversity is due in no small measure to this history of low intensity management. That includes on traditionally managed farm grasslands that mimic the natural grasslands that were once part of the area.

Some of the UK's best breeding populations of **wading birds** such as redshank, lapwing, curlew and snipe are in farmed lowlands of the National Park.

Other biodiversity highlights of the lowlands include **flower-and-insect-rich grasslands** on chalky soils. Older grasslands are also important for scarce fungi, such as waxcaps.

Buzzing biodiversity

Since it was re-discovered in Glenmoriston in 1997, the Scabious mining bee *Adrena marginata* has been found at several sites within the Cairngorms National Park, making it the country's most important area for it. This little insect was thought to be extinct in Scotland until a few years ago and it is now thought the last remaining sites are in the National Park.

Listed as endangered in seven countries, this mining bee is an internationally important part of the Park's brilliant insect biodiversity. It occupies lowland meadows with patches of bare earth in the National Park and is known as its name suggests for its liking for different scabious flowers as food.

**The Cairngorms National Park
A world-class gem for biodiversity**

2. VISION

Together, we are strong

The Cairngorms National Park is already the most important, single area in the UK for nature conservation – it has both European and global importance. The quality, variety and extent of species and habitats, many of which are internationally rare and all set within world-famous landscapes, is exceptional.

Across large parts of the National Park, the existence of these havens for biodiversity is thanks to actions by past and present generations of land and water managers, who have helped to shape and conserve them.

Furthermore, there are already organisations, individuals and agencies from a range of sectors who are all committed to, and undertaking sterling work for the benefit of nature in the National Park.

The positive impact of this work is enormous, helping to underpin both many aspects of the Park's biodiversity and the economic benefits that flow from it – whether that is directly in the use of resources such as timber, fish and game or indirectly through the massive benefits linked to tourism, recreation, health and wellbeing.

This is a great point to start this new Cairngorms Nature Action Plan from. Together we can make an even greater difference to this special place for biodiversity in the future.

Solid foundations – the secret of success

Cairngorms Nature, the new partnership that has been formed to guide, implement and review this Plan's recommendations acknowledges the major contribution everyone involved in the management of the Park makes.

In presenting its future vision, Cairngorms Nature seeks to build on the solid foundations outlined above by identifying scope for continuing the good work currently being undertaken and seeking all opportunities for positive change and enhancement.

Our vision is that...

...nature in the Cairngorms National Park will be cared for and treasured by all who live and work here and all who visit. Natural habitats, rich in distinctive species, will be even more diverse, even more resilient and even better connected than they are today.

If our vision for the future is successful, is this what the National Park will look like?

The trumpeting of cranes fills the Badenoch air and heralds the arrival of spring on the marsh. In summer a beaver swims purposefully across her newly crafted pond as the evening sun sets. Young eagles soar over the autumn colours of uplands dotted with juniper, birch and pine scrub. In winter, wildcat pad silently through the snow.

Woodland stretches from the riverbanks of the straths, and rises through burgeoning Caledonian forests and enriched, productive plantations, to its restored, natural limit of high-altitude shrubs. All four iconic grouse species thrive, some amongst nourishing pines, birches, willows and heathers, others higher up amid frost-shattered, lichen-encrusted rocks. The full complement of native raptor species once again breeds across the fens, woods, moors and mountains, supported by plentiful prey. The rich, interconnected habitats and iconic species of the Cairngorms National Park are the epitome of Scotland's ecological wellbeing.

There's a patchwork of land use that reflects centuries of traditions, supporting thriving rural communities on productive land which is good for wildlife. Owners and managers are recognised as the custodians of our countryside and supported in their work for conservation.

Wildlife is important to us. We spend time, effort and money looking after it. People speak out loudly in favour of nature, appreciate it and want to protect the good things they get from it. People who live in the National Park are proud of the nature around them; visitors respect the natural world they come to see and want to contribute to protecting it. Our National Parks are seen as National assets and they're as important to our National identity as Edinburgh castle is.

Where we are now and where we want to be

The current picture in 2012...	Our aspirations for 2063...
<p>The largest remaining areas of semi-natural woodlands in Britain are concentrated in the main river valleys of the National Park. They include 25 per cent of the entire Scottish resource of native woodlands; the greatest extent of Caledonian pinewood; some of the best surviving fragments of ancient floodplain forest in the UK; some of the largest remaining stands of Aspen and small, isolated patches of montane scrub.</p> <p>In places, the forests are fragmented and regeneration is restricted by overgrazing.</p>	<p>Woodland cover will have increased and comprise a mosaic of woodland types. Native woodland species will be increasing and their range expanding. There will be more and stronger connections amongst and between existing woodland networks. Links will be established between separate catchments and fragmented habitats forming the first steps towards a continuous belt of lowland, upland and montane woodland, right around the mountain core.</p>

<p>The National Park contains some of the most important wetlands in Europe and the most important area of natural floodplain in Britain. Away from the Insh Marshes there are only small areas of wetland and many lowland wetlands have been drained.</p> <p>Strathspey is the most important UK mainland breeding site for farmland waders, though numbers are declining.</p>	<p>Main rivers and tributaries will have significant areas of natural floodplains where rivers meander across land unaffected by hard engineering. Wetland habitats will also have expanded and be better connected.</p> <p>Proactive management on farmland will create more wet areas. Farmland waders will be breeding successfully throughout the Park and the National Park will be nationally recognised as a model of wet farmland management for conservation on productive land.</p>
<p>The Cairngorms plateaux are the largest and most important example of montane habitat in the UK. The area is of high national and European significance for many arctic-alpine specialists.</p> <p>There are concerns that an increasing number of people who come to the mountains to experience a sense of wildness and space may have a detrimental effect on the habitat.</p> <p>Climate change threatens many of our rarest and most fragile species</p>	<p>The Cairngorm mountains will continue to support healthy plant and animal communities and be even more widely regarded as the most significant area of montane habitat in the UK.</p> <p>The Cairngorms will be renowned for its wild land qualities, which visitors to the mountains continue to enjoy responsibly.</p>
<p>Nearly half of the National Park is moorland, including upland heath and blanket bog.</p> <p>Uplands are important breeding areas for red grouse and species such as Dunlin and Golden plover, although bird assemblies are rather species poor.</p> <p>Burning regimes provide valuable habitat for some species such as bearberry and rare moths.</p> <p>Much of the area was recently designated as being of European importance for Golden eagle, although raptor persecution and high intensity burning management have a detrimental</p>	<p>Upland heaths will be managed sympathetically for wildlife; notably for a greater structural diversity, for the rich lower plant communities and for raptors.</p> <p>A natural continuum from woodland to montane scrub to upland heath will start to develop.</p> <p>Carbon soils and blanket bogs will continue to act as carbon sinks and blanket bogs will retain water.</p>

<p>effect on biodiversity in many areas. Blanket bog covers extensive areas of the National Park. Peat accumulates very slowly, thus once any damage or exploitation occurs this habitat is difficult and slow to recover.</p>	
<p>Farmland and grassland in the National Park have been managed less intensively than in most other parts of the UK. This farmland is of great value to breeding wading birds.</p>	<p>The lowland landscape of the Cairngorms National Park will be one in which the production of high quality food and a countryside rich in wildlife are maintained in harmony with each other.</p> <p>A network of high quality grasslands will support a healthy range of nationally and locally important species.</p>
<p>In a UK context, rivers and lochs in the National Park have a high degree of naturalness and are largely in good condition. Most of the area's water is of excellent quality and internationally recognised for important habitats and species.</p>	<p>The high water quality status will have been maintained or increased. Natural rivers and burns will also reduce the impact of flooding events.</p>
<p>Some residents place a high value on their surroundings and are keen to get involved in discussions about its management. The national and international significance of habitats and species is understood by many specialists and interested individuals. A small proportion of people engage with their surroundings through local activities.</p> <p>Visitors come to the National Park motivated by the landscapes and wildlife. Wildlife watching is a burgeoning tourism industry that complements the already substantial sporting offering. Opportunities for non-residents to volunteer or contribute in some way are site and/or organisation specific and relatively small scale.</p>	<p>Individuals, communities and businesses will be actively involved and engaged with biodiversity conservation. Communities will have a high degree of ownership for their local natural heritage and they will be delivering projects designed to protect and enhance features they value.</p> <p>Businesses will utilise the natural resources in a sustainable manner and contribute to the conservation and enhancement of the National Park's biodiversity.</p> <p>In built up areas, biodiversity will enhance the quality of life for residents by making local landscape more attractive, interesting and diverse, providing opportunities for recreation, health benefits, wildlife and natural services.</p>

Work will be carried out in the future to help the Cairngorms National Park use the latest knowledge, thinking and research to realise further biodiversity benefits; to deal with the effects and impacts of climate change; and tackle the threats posed by invasive species.

Our **knowledge of biodiversity and ecosystems** will continue to grow through proactive research. Habitat and species mapping and monitoring will be even more comprehensive and up to date whilst policy makers and practitioners will have access to current information and advice via a centralised database.

An integrated habitat network will extend across the Cairngorms National Park, allowing species and ecosystems to respond and/or be robust enough to adapt to **climate change**. Peatlands and woodlands will function as carbon sinks and wetlands will mitigate against the worst impacts of extreme weather events.

Monitoring and management of **invasive species** will be more proactive, preventing and limiting the spread of the most damaging species so they do not have a negative impact upon the effective functioning of ecosystems.

3. STRATEGY

Cairngorms Nature

Cairngorms Nature is a partnership where people and organisations come together, regardless of sector or background. The one thing we all have in common is a desire to safeguard and enhance the outstanding nature in the Cairngorms National Park and all the benefits that flow from it. Working together, we are more likely to achieve and share success and this means positive change for biodiversity in the Park.

Cairngorms Nature is open to all who care about nature and want to contribute to achieving the aims in this action plan. It is steered by a strategy group made up of representatives from Dee Fisheries Trust, Forestry Commission Scotland, National Farmers Union Scotland, National Trust for Scotland, Royal Society for the Protection of Birds, Scottish Land & Estates, Scottish Gamekeepers' Association, Cairngorms National Park Authority and a Community Development Officer.

Action Plan

The action plan builds on the work of the previous Cairngorms LBAP. It describes what we agree are the most important things to do over the next five years and provides a focus for the work of partners. It is an active plan that will react to changes in circumstances and make the most of other opportunities to deliver the aims effectively.

3.1 Aims

The Cairngorms Nature Action Plan outlines how, through the collective and co-ordinated efforts of members it aims to:

- **Improve the quality and connectivity of woodlands and wetlands for biodiversity**
- **Conserve and enhance key species through focused conservation action**
- **Implement priority habitat actions for montane, moorland and grassland**
- **Inspire and provide opportunities for people to engage with nature**

Woodlands and Wetlands

The importance for concerted effort on woodlands and wetlands has been highlighted through extensive consultation with key partners as part of developing the National Park Partnership Plan. In this regard the Cairngorms Nature Action Plan is a key delivery mechanism for the Partnership Plan.

Key species

The Cairngorms National Park is a stronghold for biodiversity and supports one-quarter of the UK Biodiversity Action Plan species as well as many others that are considered nationally and internationally important. Based on the criteria below, consultation with local and national experts identified about 1200 species in the National Park that are considered important (which will inform advice and guidance to planning applications):

1. A high proportion of the UK or Scottish population or range is in the National Park;
2. The species is classed as rare based on either occurring in between 1 and 15 ten-kilometre squares in the UK or is present in 5 or fewer ten-kilometre squares or sites in Scotland;
3. The species is red listed or UKBAP, endemic, EPS, Scottish Biodiversity list or other nationally recognised category;
4. The species is known to be in decline by 25% or more, based on evidence, or is considered in serious decline by expert opinion;
5. The species is known to be under threat, based on evidence or expert opinion.

A lot of these species will benefit from the habitat actions in the plan, however some have very specific and immediate requirements, these are highlighted as key species in the plan, selected on the further criteria:

1. Action is not covered within the habitat actions
2. Action can make a positive difference
3. Action is needed now and cannot wait for the next Action Plan
4. The existing knowledge base allows informed action
5. Action is realistic and achievable
6. The species is important in a Cairngorms context, with a high proportion of its range or population in the National Park

Other priority habitat actions

There are some issues not encompassed by other areas of habitat and species work in the Action Plan that have been identified as needing immediate and direct action. As well as the focussed action on the priorities of woodlands and wetlands, it is also important that we maintain our efforts in other areas; for example on blanket bog restoration.

Involving people

The interaction between people and nature plays a crucial role in the way it is valued. It is therefore vitally important that residents and visitors have the opportunity to enjoy and appreciate their natural heritage. Developing and supporting opportunities for engaging and contributing reflects policies and outcomes in many national strategies and in the National Park Partnership Plan.

3.2 Policy context

Scotland's National Parks are national assets that showcase the very best of Scotland's environment and the multiple benefits of landscape scale integrated land use. Their collective management contributes directly to Scottish Government Outcomes and National strategies.

The conservation and enhancement of the environment is central to National Parks achieving their purpose. It underpins the delivery of all four aims of Scotland's National Parks and is integral to the sustainable development needed to support communities and businesses to protect and enhance these for future generations.

Cairngorms National Park Partnership Plan 2012 - 2017

The Cairngorms National Park Partnership Plan identifies the direction and priorities to which partners agree to direct their effort and resources in the National Park.

Key partner public bodies are asked to identify and report in their corporate plans how they contribute to delivery.

The Cairngorms Nature Action Plan is a key delivery mechanism for the National Park Partnership Plan.

Cairngorms Nature is a representative group that will contribute significant expertise and advice to the delivery of the Cairngorms National Park Partnership Plan and is an important delivery mechanism for five-year outcomes 4, 5 and 8 contained within it. These are:

4 The quality and connectivity of habitats is enhanced

Progress will be measured against the increase in total woodland area and maintenance or increase in water quality.

5 The species for which the Park is most important are in better conservation status

Progress will be measured against achieving the targets identified in this Action Plan.

8 More people will enjoy, learn about and help to conserve and enhance the Park

Progress will be measured against the number of volunteer days spent caring for the Park per year.

Managing and responding to the effects of **climate change** is vital to delivering a special place for people and nature with natural and cultural heritage enhanced.

Many of the work packages, and policy priorities to help deliver these, and other, outcomes support work to manage peatlands, woods and to store and secure more carbon in moorland. They also support action to improve the health and connections of habitat. This will help them and the species that rely on them to adapt to changes in climate.

This Nature Action Plan reflects the policies and frameworks that support the National Park Partnership Plan, notably:

- the Forest and Woodland Framework
- the Deer Framework
- the Sustainable Tourism Strategy

Cairngorms National Park Local Plan

The Cairngorms National Park Local Plan replaces all existing local authority plans. To accompany the Local Plan, the CNPA have produced a number of Supplementary Planning Guidance documents, including one for Natural Heritage. All planning applications in the National Park will be assessed against the policies and proposals in the Local Plan.

The purpose of the Cairngorms Nature Action Plan is to concentrate positive conservation action in the Park; it is not to afford protection to important habitats and species as part of the planning process. However, it is expected that the aims of the Action Plan will be given greater weight by the planning authority when determining an application, and in any mitigation or compensation measures.

Consultation with many species experts on the Cairngorms Nature Action Plan has resulted in a list of some 1200 species in the National Park that are of regional, national and international significance. This list will inform advice and guidance relating to planning applications.

Scottish Government Outcomes

Delivering biodiversity gain will directly contribute to the delivery of three of the Scottish Government outcomes. These include:

- We value and enjoy our built and natural environment and protect it and enhance it for future generations
- We take pride in a strong, fair and inclusive national identity
- We reduce the local and global environmental impact of our consumption and production

Scottish Biodiversity Strategy – The 2020 Challenge

The Scottish Biodiversity Strategy was published in 2004 with the aim “to conserve biodiversity for the health, enjoyment and wellbeing of the people of Scotland, now and in the future.” Additional elements focus on desired outcomes for 2020. The 2020 Challenge represents the Scottish contribution to wider international initiatives – the EU Biodiversity Strategy for 2020, and global targets agreed in Aichi province in Japan in 2010. The Scottish Government and its agencies are committed to meeting these targets and the aims of the 2020 challenge:

- to increase the general level of biodiversity on land and in our seas, and support healthy, well-functioning ecosystems;
- to engage people with the natural world, for the health and well-being benefits that this brings, and empower them to have a say in decisions about their environment; and
- to maximise the benefits for Scotland of a diverse natural environment and the services it provides, contributing to sustainable economic growth.

Scottish Forestry Strategy

The core principles of the Scottish Forestry Strategy are based on sustainable development and social inclusion, achieved through a culture of ‘forestry for and with people’ and delivered in well-managed forests and woodlands that integrate effectively with other land uses and businesses.

Actions in the Cairngorms Nature Action Plan support the delivery of objectives in outcome 3 of the Scottish Forestry Strategy under **High quality, robust and adaptable environments**:

- restore and enhance priority habitats;
- increase the focus on priority species;
- secure biodiversity benefits from sustainable forest management;
- promote a landscape-scale approach to habitat networks; and
- increase awareness and involvement of all sectors of society.

The Cairngorms Nature Action Plan also supports work in key theme 7 ‘**biodiversity**’ of the Scottish Forestry Strategy:

- targeted action for woodland and woodland related priority species and habitats;
- broader actions at a landscape/ecosystem scale;
- increase awareness and public enjoyment of biodiversity, especially close to where people live or visit; and
- improve the knowledge of, and evidence base for, biodiversity.

Scottish Land Use Strategy

The Scottish Land Use Strategy is a strategic framework bringing together proposals for getting the best from Scotland's land resources. The Scottish Government expects the wider public sector to take a leading role in implementing the Strategy, by utilising the Principles for Sustainable Land Use in the ways that it manages its own land; develops and implements its plans and strategies; and promotes partnership working.

Actions in the Cairngorms Nature Action Plan are consistent with Scottish Land Use Strategy objectives of:

- Responsible stewardship of Scotland's natural resources delivering more benefits to Scotland's people
- Urban and rural communities better connected to the land, with more people enjoying the land and positively influencing land use

The Cairngorms Nature Action Plan is also consistent with this Strategy's principles that:

- Landscape change should be managed positively and sympathetically, considering the implications of change at a scale appropriate to the landscape in question, given that all Scotland's landscapes are important to our sense of identity and to our individual and social wellbeing.
- Land-use decisions should be informed by an understanding of the opportunities and threats brought about by the changing climate. Greenhouse gas emissions associated with land use should be reduced and land should continue to contribute to delivering climate change adaptation and mitigation objectives.

Scotland Rural Development Programme

The recently finished round of SRDP activity was a programme of economic, environmental and social measures, utilising some €680m of European Agricultural Fund for Rural Development funding plus Scottish Government match funding.

As this programme comes to an end, the funding opportunities identified in the 2014-2020 programmes to help achieve the Government's strategic objectives in rural Scotland will have a significant impact on the resources available to deliver parts of the Cairngorms Nature Action Plan.

3.3 Research and data

There is a lot of high quality data and research undertaken in the Cairngorms National Park, by a variety of different organisations and individuals. This data is frequently sporadic and localised. It is often challenging to establish the current knowledge base, access information and realise the whole picture across the National Park. It is important that we do not try to invent more systems for recording but rather we co-ordinate the existing ones and make sure there are opportunities for a wide range of people to get involved.

Research, surveying, monitoring and data collection are very important and even essential in some cases, but take time, effort and money. Building our knowledge base is intrinsically resource intensive and will require input from all Cairngorms Nature members. We have to be realistic about what we can achieve and focus on the things that have the most impact on the ground and on those that have a pressing need.

Important research, survey and monitoring work is identified as actions throughout the plan. And as a principle, Cairngorms Nature will focus efforts in two main areas of work:

- Collating and ensuring easy access to biological data;
- Undertaking research, surveying and monitoring that will
 - directly help deliver actions; and
 - help monitor indicators and progress

3.4 Bio-security

Non-native species, pathogens and diseases could have a considerable impact upon the nature of the Cairngorms and subsequently on a range of nature-based economic activities such as fishing, forestry and farming.

Whilst not all non-native species pose a threat to the biodiversity some can kill, harbour disease and compete with native species. Several non-native species have been introduced to the National Park, either deliberately or accidentally, and have become established. These are currently at low densities and pose relatively low threats. However, it is crucial that we continue to survey, monitor and support eradication programmes.

Pathogens and diseases pose significant threats to biodiversity and to the economy in the National Park; for example squirrel pox, red needle blight, ash die back and *girodactylus salaris*.

In dealing with bio-security issues, Cairngorms Nature will:

- Promote understanding of the issues caused by non-native species and the remedial measures that can be taken at both a local and landscape level;
- Support existing eradication and prevention programmes; and
- Review existing plans and policies, identify gaps and duplications, and formulate a Park-wide strategic approach.

4 ACTION

4.1 Woodland

The woodlands of the Cairngorms are of national and international importance because they contain the largest remaining areas of semi-natural woodland habitats, and the most extensive area of boreal forest, in Britain. The Cairngorms National Park occupies just less than 6% of Scotland's land mass, yet contains nearly 25% of the entire Scottish resource of native woodlands. Associated with these woodlands are a number of populations of species found nowhere else in Great Britain.

The current extent, distribution, size and composition of Cairngorms woodlands has largely been determined by historical human activities, such as woodland clearance, planting and prevention of natural tree regeneration by burning and grazing. Our forests play a vital role in carbon sequestration and flood prevention.

Habitats included under this category are Caledonian Pinewoods (UKBAP) & conifer plantations (local priority), Upland Birchwoods – incorporating aspen “woodlands”– (UKBAP), Upland Oak (UKBAP) Montane Scrub/woodland (UKBAP) and Wet woodland (UKBAP).

Caledonian Pinewoods (UKBAP)

The Caledonian pinewoods in the National Park are greater in total area and individual size than anywhere else in Scotland. Native pine woodlands, of self-sown Scots pine, are relicts of the ancient Caledonian Forest believed to have covered much of the Scottish Highlands. In the past these indigenous forests may have covered more than 1.5 million ha of Scotland, but today less than 1% of the former range now remains.

Pine woodlands usually contain varying amounts of birch and other broadleaved trees, with juniper often an important understory species. The native ‘Caledonian’ pine woods are of disproportionate importance in terms of biodiversity, possessing a characteristic plant and animal community which includes many rare and uncommon species.

Conifer Plantations (local priority)

Conifer plantations are an important woodland type in the National Park, as an economic resource and a natural asset. They are a mixture of native Scots Pine and introduced species such as Sitka and Norway spruce, lodgepole pine, Douglas fir and larch. Many plantations are of a single species and their structure varies with the age of the stand and management.

Conifer plantations make up nearly 50% of the total woodland resource in the Cairngorms and more than a third of these are on Ancient Woodland Sites. This continuity of forest cover and high proportion of Scots pine has resulted in many plantations resembling native pinewoods. Significant biodiversity benefits are possible if such productive woodlands can be enhanced by increasing structural diversity and adopting Continual Forest Cover management.

Birch and Aspen woodland (UKBAP)

Birch is the dominant tree species in almost all Cairngorms Broadleaved woodlands, and is by far the most extensive broadleaved woodland type in the Cairngorms. Birch grows on a wide range of soil types and is usually the most common tree species at higher altitude. Birch woodland commonly includes other tree species such as oak, aspen and hazel; birch often grows in association with Scots pine in mixed woodlands.

Although Aspen as a species is widely distributed in Great Britain, it is usually associated with birch woods or mixed woodlands. Uniquely, in the Cairngorms, aspen can be the dominant species forming a rare type of “aspen woodland” usually with other broadleaved species, particularly birch. These stands of aspen woodlands are small: the total resource is probably less than 200 hectares, concentrated on the low ground of Strathspey and Deeside. The large aspen stands of the Cairngorms are a remnant of the ancient boreal woodlands that colonised the area at the end of the last glaciations, and many have a history of continuity going back hundreds of years. These woods support many rare and scarce moths, flies, fungi, lichen and mosses that occur nowhere else in the UK.

Wet & Riparian Woodland (UKBAP)

Wet and bog woodlands occur on poorly drained or seasonally wet soils, usually with alder, birch and willows as the predominant tree species, but sometimes pine on drier areas. They are found on floodplains, as successional habitat on fens, mires and bogs, along streams and hill-side flushes and in peaty hollows. Wet woods frequently occur in mosaic with other important habitats and play an important role in flood management.

Fragments of ancient floodplain forest are rare in the UK, some of the best surviving examples are in the Cairngorms. These sites include habitats such as ‘Residual alluvial forests’ and ‘Bog woodland’ identified under international conservation designations. There are no precise data on the extent of wet or bog woodlands in UK, but it is unlikely that those of the Cairngorms form a particularly large proportion. However, the high ecological quality and importance of riparian woodland in the Cairngorms, especially in Strathspey and Deeside, is probably unsurpassed in a UK and, in some cases, European context.

Montane Woodland (Mountain Heaths and Willow Scrub UKBAP)

Montane woodland or scrub can be defined as the habitat on mountains in which trees and shrubs grow at altitudes higher than the treeline. It is characterised by a range of shrub and tree species (dwarf willows, juniper and birches usually), growing in a low twisted, wind-pruned form, together with a variety of flowering plants, fungi, lichens, insects, birds, and other species particularly associated with this zone.

Montane scrub is the rarest and most threatened of our native woodland types in the UK, confined largely to remnant patches on remote and inaccessible cliffs in Scotland. It is present in no more than a few hundred sites, nearly all less than 1 ha. It is most evident as scattered trees well above any woodland on the open hill showing the upper limits of tree-growth but not forming a continuous treeline. The best example of a continuous treeline in Britain is at Creag Fhiaclach, above Inchriach, where a complex of Scots pine and Juniper scrub has developed at 550 to 650m.

Upland Oak (UKBAP)

Upland oak is a component of the broadleaved woodland in the Park. Although widely distributed throughout Great Britain, the combination of poor soils, harsh climate, the value of the timber and livestock grazing has made this type of woodland rare in the Cairngorms. Most of the oak woodlands in the National Park occur in Deeside and sparingly in Strathspey and Atholl.

WOODLANDS			
AREA OF WORK	ACTION	WHO	WHAT
ACTIONS FOR ALL WOODLAND TYPES			
Improving connectivity	Identify National Park wide strategic opportunities and priorities for expansion and connectivity across all woodland types	CNPA, FR, SNH	Map projections for current and future potential forest cover
		CNPA, FR, SNH	Map potential expansion areas adjacent to existing woodland types
		SLE, CNPA, SGA, NFUS	Investigate opportunities with landowners for strategic planting to support connectivity
		Species and habitat experts and groups	Identify, map and maintain a register of woodlands with high biodiversity value
		CDAG, SLE, SGA, SNH	Review current deer management and moorland burning plans in sensitive and strategic areas
	Encourage land managers to create new native woodlands; and woodlands in strategic areas	CNPA, SLE, NFUS, SGA, Fishery Trusts	Raise awareness of forest expansion plans, and the multiple benefits of woodland creation, among land managers, foresters and agents
		FCS, CNPA	Maximise expansion and connectivity opportunities through Long Term Forest Plan consultations
		NTS, FCS, SNH, RSPB	Review current forest plans and adapt to maximise strategic opportunities

		CNPA, SNH, FCS	Establish large scale external funding opportunities to support local incentives for native woodland creation
Improving biodiversity value	Encourage and promote enhancement as part of forest management plans	CNPA, FCS, SNH	Provide advice and guidance for enhancement measures in Long Term Forest Plan consultations
		SLE, CNPA, FCS, SNH, RSPB	Work with managers of woodlands with high biodiversity value or strategic importance to identify opportunities for enhancement
	Actively enhance existing woodlands	RSPB, NTS, SNH, FCS	Review current management plans to maximise opportunities for enhancement
		RSPB, FCS, SNH, NTS	Create deadwood, bog pools, wetland areas and glades
		RSPB, FCS, SNH, NTS	Introduce cattle grazing as a field layer management measure; continue and extend programmes of burning, cutting and swiping
		CNPA, NFUS	Work with land managers to promote cattle grazing to improve field layer
		RSPB, SNH, FCS, NTS	Undertake enrichment planting with a range of native broadleaves and juniper
		RSPB, NTS, SNH, FCS	Review deer and livestock management plans to enable improvements to the field layer
		CNPA, SNH, FCS, SLE	Encourage and support land managers to apply for funding to carry out woodland enhancement activities
			RSPB, SNH, FCS, NTS

	Raise awareness and demonstrate the benefits of woodland enhancement; provide training and support	FCS, SNH	Deliver sharing good practice events on woodland enhancement
		SNH, FCS, RSPB	Promote NNR's as showcases for the benefits of woodland enhancement
		FCS, FR, HB, HAG, RSPB, nurseries	Make available indigenous planting stock from local sites
		FCS, FR	Produce guidance notes on biodiversity and forest operations
ACTIONS SPECIFIC TO DIFFERENT WOODLAND TYPES			
Conifer plantation	Restore plantations on ancient woodland sites	FCS, SNH, CNPA	Maximise opportunities for PAWS restoration through Forest Plan consultations and reviews
		FCS	Restore all FCS conifer plantations on PAWS
	Promote continuous cover forestry and landscape improvements	CNPA, FCS, SNH, SLE	Provide advice and guidance through Long Term Forest Plan consultations, workshops and events.
Montane	Create new montane woods, building on the existing resource	HB, SNH, FCS	Establish a landscape scale montane woodland project independently supported by appropriate funding
		FCS, FR, HB, HAG, Nurseries	Collect and grow indigenous origin seed
Wet and riparian	Create new areas of riparian woodland	DFT, NTS	Plant riparian woodlands along the upper Dee catchment
		Fisheries Trusts, SLE, SGA, RSPB	Initiate riparian planting schemes in the upper Spey, Don and Garry catchments

	Create new and enhance existing bog and wet woodland	SNH, FCS, NTS, RSPB	Block drains and re-wet areas
Birch and aspen	Create new areas of aspen, enhance and link existing stands	HAG	Identify undesignated birch and aspen woodlands that are important for biodiversity
		RSPB, FCS, SNH, NTS, Fisheries Trusts	Halo thin birchwoods, retain open woodland structure and fence off suckering aspen to protect from grazing
		HAG	Promote aspen conservation and enrichment planting
Upland oak	Find out more about status and distribution	SNH, FCS, species and habitat groups	Collate all existing data and commission survey data if required
KEY SPECIES FOR FOCUSED ACTION			
Capercaillie <i>Tetrao urogallus</i>	Improve the quality and extent of habitat	RSPB, FCS, SNH, CNPA, Crown Estate, land managers	Increase the connectivity of core capercaillie habitat (stepping stones within 5km of existing woodland and of at least 50Ha in size. Outwith core areas this can be increased to 12km)
	Research and address the reasons for decline	RSPB, FCS, SNH, CNPA, Caper BAP Group	Deliver the Capercaillie Research and Management Framework.
Scottish wildcat <i>Felis silvestris grampia</i>	Build on the work developed by the Cairngorms Wildcat Project	RZSS, SNH, FCS, SGA, SCA, SLE, GWCT, BASC, SWA, CNPA	Implement the Scottish Wildcat Conservation Action Group plan.
Twinflower <i>Linnaea borealis</i>	Find out more about management needs	RBGE, Plantlife, JHI, Universities	Research genetics and reproductive status

		CRPP	Establish management trials
		BSBI, CRPP, Plantlife, Rangers, SNH, NTS, RSPB,	Undertake programme of annual monitoring
	Create new populations	CRPP	Identify sites and implement translocation trials
One flowered wintergreen <i>Moneses uniflora</i>	Find out more about status and management needs	RBGE, JHI, Plantlife, Universities, CRPP	Research the sexual and vegetative reproductive biology
		RBGE, CRPP, Plantlife, BSBI	Identify status of known populations and survey periodically for new records.
		CRPP	Identify key management requirements at known sites
		CRPP, BSBI, Plantlife, rangers, estate staff	Establish and monitor habitat management trials
Green Shield Moss <i>Buxbaumia viridis</i>	Monitor sites	Plantlife, BSBI, BBS, BLS, RSPB, FCS, SNH	Compile a rare plants dataset for use in forestry operations and undertake annual monitoring of known and potential sites
	Improve the quality and extent of available habitat	RSPB, SNH, FCS, Plantlife, land managers	Actively manage for deadwood creation in sheltered, humid areas
Pine hoverfly <i>Blera fallax</i>	Protect existing populations, create and support new ones	Malloch Society	Monitor populations at known and recently created sites

		RSPB, FCS, Rothiemurchus Estate, Curr Wood	Continue to create artificial breeding habitat and deadwood
		Malloch Society, RZZS, RSPB	Augment new populations with captive breed larvae
		FCS, SNH, CNPA	Liaise with land managers to create artificial breeding habitat adjacent to existing sites
		Malloch Society, RZZS, RSPB	Continue captive breeding programme
Pearl bordered fritillary <i>Boloria euphrosyne</i>	Find out more about status and distribution	BCS, FCS, volunteers,	Promote and co-ordinate surveys via survey days/workshops and web sites
		BCS, FCS, volunteers,	Monitor selected sites annually
	Continue to manage current sites sympathetically and create new habitat nearby	BCS, FCS, woodland agents, landowners, volunteers	Liaise with landowners to encourage management for existing populations and creating new habitat
		SNH, FCS, RSPB, NTS, Crown Estate	Create new habitat adjacent to existing populations
Dark Bordered Beauty <i>Epione paralellaria</i>	Continue to manage current sites sympathetically	BCS, RSPB, volunteers	Monitor current populations at selected sites annually
		BCS, RSPB, volunteers, FCS, rangers	Undertake management, if required, to enhance habitat conditions for suckering aspen

	Expand current populations	SNH, FCS, RSPB, NTS, Crown Estate	Create new habitat adjacent to existing populations
		BCS, RSPB, volunteers	Liaise with landowners to increase the area of suitable habitat adjacent to known populations
		BCS, RSPB, volunteers	Investigate opportunities for translocations
Kentish Glory <i>Endromis versicolora</i>	Find out more about the species' current status	BCS, FCS, volunteers	Promote and co-ordinate surveys and monitor sites annually
	Continue to manage current sites sympathetically and create new habitat	BCS, FCS, volunteers	Liaise with landowners to encourage management for regenerating birch to support current and expanding populations
Wood ants group	Find out more about the status and distribution of wood ant populations	UKBAP Woodant Group, FCS, Buglife, FR	Develop a monitoring protocol for wood ants
		UKBAP Woodant Group, FCS, Buglife, HBRG	Initiate an annual programme of monitoring a selection of sites
		UKBAP Woodant Group, Buglife, FR	Encourage studies into species ecology and management requirements
	Manage woodlands sympathetically	FCS	Produce woodland management guidelines specific to wood ants
		FCS, NTS, SNH	Ensure key sites are undisturbed by changes in management practise, clear felling and forestry operation
	create new habitat	Land managers, FCS, NTS, SNH	Provide deadwood and enhance the field layer in adjacent sites

TARGETS

There will be 5250ha of new woodland – and, as a result, a 10% increase in connectivity:

- 4000ha of native pinewood – 1200ha of which will be adjacent to existing resource
- 750ha of birchwood – 375ha of which will be adjacent to existing resource
- 20 aspen stands (25,000 new trees)
- 200ha of montane wood
- 100km of riparian wood
- 5 new wet/ bog woodlands
- 200ha of upland oak

Enhancement measures will have happened in:

- 2000ha of native pinewood
- 2000ha of native broadleaved woodland
- 1000ha of conifer plantation

All FCS, and 30% of other, PAWS sites will be under restoration

There will be no reduction in populations of key species

Fending Off The American Invasion

Populations of red squirrel are widespread and doing well in the forest habitats of the Cairngorms. The habitat work specified in this plan will benefit them further, but we need to ensure that their unwelcomed cousin doesn't spoil things. Grey Squirrels, which are non-native and originally from North America have been very successful in colonising much of the rest of the UK. They outcompete our native reds and carry the squirrel pox virus. We must prevent greys from entering the national park by ensuring they are controlled at strategic pinchpoints in the south and east of the National Park to make sure that we remain a stronghold for this charismatic and popular species.

Action: Monitor and control influx of grey squirrels.

Cooling Hot Flushes

Riparian woodlands provide essential benefits to much more than the obvious species that are regularly seen using them. The link between the trees along the river banks and the biodiversity in the water is significant. Trees provide food and shade that cools the water temperature which is vital for young salmonids. With climate change predictions suggesting that water temperatures on our denuded headwaters will increase to potentially lethal temperatures for salmonids, they are at greater risk than ever. The freshwater pearl mussel, one of our rarest species, is also dependent on these salmonids during the juvenile stage of their lifecycle. A significant new project "Pearls in Peril" is underway to start addressing this problem, but much more planting needs to be done.

Action: Plant riparian woodlands along river banks and up the tributaries and headwaters of river catchments.

4.2 Wetlands

The Cairngorms National Park holds nationally and internationally important wetland sites. Cairngorms river and freshwater habitats and their water are considered of high quality while being home to a rich mix of wildlife. The is also one of the most important UK mainland sites for breeding wading birds due to its combination of wetlands and low intensity mixed farming.

Wetland habitats in the Cairngorms National Park have been considerably reduced by drainage through past land management practices, there are many sites in need of enhancement or restoration. Remaining wetlands are often small and fragmented and are still under threat from development pressure, diffuse pollution and resource-use pressures such as abstractions, impoundments, engineering activities and drainage operations. Waders such as lapwing and redshank have seen their numbers dramatically reduce by over 50% in the last 10 years.

Mosaics of well-managed wetland habitats are essential for the long-term survival of some of our most special wildlife. Wetlands also bring multiple benefits beyond their intrinsic nature conservation value such as buffering against flood events, climate change mitigation, diffuse pollution control, aquifer recharge, improvements to landscape quality, educational value as well as tourism and recreational benefits.

Climate change models predict that we will see an increase in rainfall in the autumn months. This has the potential for an increase in flash flooding. There is now a greater need than ever for a sustainable approach to flood management using natural river processes to manage flooding where it arises. Natural flood management using soft engineering options to slow the flow of water upstream and increase water storage in the whole catchment could provide wide-ranging benefits for nature and people. Riparian woodland planting and creating new upland woodlands can help reduce the impacts of flood events. The Cairngorms National Park has huge potential to lead the way with these techniques and deliver Scottish Government targets from the Flood Risk Management Act and the European Water Framework Directive.

Habitats included under this are Upland flushes, fens & swamps (UKBAP), Lowland fens (UKBAP), Wet grassland (local priority for nationally significant wader populations), Rivers (UKBAP), and Lochs & ponds (UKBAP).

WETLANDS				
AREA OF WORK	ACTION	WHO	WHAT	
Enhancing existing wetlands	Support farmers and land managers to conserve populations of breeding waders	SWWI partners	Develop and deliver SWWI action plan	
		SWWI partners	Raise awareness of the value of wetlands	
		SAC, agricultural agents	Promote wader/wetland focused management when advising and developing funding applications.	
		NFUS	Promote wader/wetland friendly practices to members	
		RSPB, CNPA, SNH	Support initiatives for other important wader areas	
		CNPA (Land Management Officer)	Create and maintain an on-line database of funding guidance and management options	
		RSPB, CNPA, SAC, land agents and advisors	Provide advice and training for land managers	
		SEPA	Encourage and fund opportunities for improving wet areas	
	Improve wet grassland through positive conservation action		SWWI partners	Facilitate the creation of new wading feeding areas
			Catchment Management Partnerships	Seek and develop opportunities to reinstate water sources
			SWWI partners RSPB, CNPA, SNH	Negotiate opportunities and work with land managers to reinstate water sources, create wet patches, block drains and install sluices as appropriate

	Avoid a build up of rank vegetation and scrub encroachment in key wader breeding areas.	CNPA, RSPB, Crown Estate, lowland farms	Remove scrub with rush topping machinery and other methods of wader friendly management
		CNPA	Support the development of biomass technology that uses rush cuttings
	Support Catchment Management Partnerships and the Futurescapes Project	SEPA, SNH, RSPB, Fisheries Board, RSPB, CNPA	Ensure partnerships/project continue to be actively engaged in wetland conservation management
		SEPA, SNH, RSPB, Fisheries Board, RSPB, CNPA	Look for opportunities to improve biodiversity
Increasing the area of wetland habitat	Investigate opportunities to create new wetlands	CNPA, SNH, SEPA, RSPB	Identify potential new sites with land owners
		CNPA, Local Authorities	Encourage wetland creation, and sustainable urban drainage schemes, as mitigation or compensation work
	Protect existing wetland areas	CNPA, Local Authorities	Discourage development on wetland sites
		SWWI partners	Influence policy changes that currently encourage active drainage of water logged soils
		CNPA Land Management Officer, SWWI partners	Discourage drainage via grant payments and management agreements
	Demonstrate sustainable flood management via the restoration of a natural flooding regime	Catchment Management Partnerships, RSPB	Reinstate/naturalise new sections of previously modified burns
Catchment Management Partnerships, SEPA		Develop Sustainable Flood Management demonstration projects	

		RSPB	Develop and trial innovative restoration projects	
		Dee Catchment Management Partnership	Deliver floodplain restoration project upstream of Braemar	
		Create new ponds.	Pond Conservation Trust, CNPA	Extend the "Create a Million Ponds" project in CNP
			SWWI partners	Encourage pond creation as part of Farm Visits Project
Maintain high water quality of rivers and freshwater systems	Continue to support river management to improve ecological status of all water bodies.	SEPA	Water bodies improved so that they meet the SEPA description of "good ecological status"	
		CNPA, SEPA, SNH, Fisheries Trusts	Discourage in-stream developments and abstractions which may impact on "good ecological status" and important species	
KEY SPECIES FOR FOCUSSED ACTION				
Redshank <i>Tringa totanus</i>	Support land managers to improve the quality and extent of habitat available	SWWI partners	Investigate reasons for decline	
		SWWI partners	Provide advice and training	
		RSPB, Crown Estate, lowland farms	Employ cattle grazing at seasonally appropriate levels	
			Avoid planting trees on or adjacent to redshank sites and remove encroaching scrub	
			Create a mosaic of different vegetation structures and heights	
Create wet areas including shallow scrapes and soft-edged ditches as feeding areas				
Freshwater pearl mussel <i>Margaritifera margaritifera</i>	Protect existing populations	SNH, PAWS, RAFTS, Fishery Trusts, LIFE project	Continue to raise awareness of the protected status and the impacts of wildlife crime	

		LIFE project	Monitor reintroduction sites and augment populations if necessary
		SNH, Fisheries Trusts, SEPA	Develop techniques for the removal of <i>Ranunculus</i> species
	Create new populations	LIFE project	Survey and enhance habitats for potential further reintroductions
Northern damselfly <i>Coenagrion hastulatum</i>	Find out more about the species' status and management needs	BDS, Universities, Hutton	Initiate research into the species habitat and ecological needs
		BDS, local volunteers,	Survey known breeding ponds
	Protect existing populations and create new habitat nearby	RSPB, SNH, FCS, Land managers	Maintain current, sympathetic management practises at known sites
		Land managers, FCS RSPB, SNH, NTS	Create new ponds within 1km of known breeding sites
A fungus <i>Plicatura crispa</i>	Find out more about status and requirements	local fungus groups, RSPB, FCS, Plantlife, BMS	Survey and monitor known sites and target a selection of suitable sites for investigation
		local fungus groups, FR, Plantlife, BMS	Undertake research to identify the ecological requirements of this fungi and identify the key management practices
		Plantlife, BMS	Provide training and development of mycological expertise
	Protect existing populations	Fishery Trusts, FCS, RSPB	Discourage detrimental changes in management practises at known sites
		Plantlife, BMS, local fungus groups	Develop education and awareness raising initiatives by the various fungus groups

Northern February red stonefly <i>Brachyptera putata</i>	Find out more about status and requirements	Buglife, Riverfly Partnership	Survey and monitor known sites and target a selection of suitable sites for investigation
		Buglife, Riverfly Partnership	Encourage studies to improve knowledge of habitat requirements and management
	Protect existing populations	Buglife, Riverfly Partnership, FCS, Fishery Trusts	Encourage land managers to consider management needs in woodland planting schemes
		SEPA	Maintain rivers and burns in good ecological status
		Buglife, Riverfly Partnership	Raise awareness of management needs amongst land managers
	TARGETS		
There will be a net increase in the area of wetland			
5km of drains will be blocked			
50 new wader feeding areas will be created			
2 new areas or sections of historically modified burns will be reinstated			
There will be no decrease in the populations of key species			

Ancient Wetland Dancers - Eurasian crane *Grus grus*

The Eurasian crane is one of the most ancient species of bird on the planet and one that has historically been the focus of myths and legends throughout the world. These huge, elegant birds are famed for their elaborate courtship dance. Extinct as a breeding bird in the Cairngorms since probably the 16th century, they are now only a rare visitor. Their extinction was likely due to over-hunting, the crane was regarded historically as good food. The destruction and drainage of wetland habitats may also have contributed. There is a small recolonising population breeding in the Norfolk Broads and the recent “Great Crane Project” in Somerset has seen them reintroduced to the UK. The enchanting trumpeting call of the crane could be an inspiring flagship species for the conservation and enhancement of multiple-benefit wetlands in the Cairngorms.

Action: Further investigate the potential for facilitating recolonisation and, if appropriate, instigate a restoration project

Ecosystem Engineers – Eurasian Beaver *Castor fiber*

Beavers are well known for their ability to influence their surrounding landscape. By adapting small streams and ditches into broader, deeper watercourses and ponds through damming, the beaver introduces greater variety into watercourses which is beneficial for a range of plants, invertebrates, fish, amphibians, birds, and mammals such as water voles. They became extinct due to over-hunting for their very valuable pelts probably in the 16th or 17th century. The Eurasian beaver has been reintroduced throughout the rest of Europe (at least 157 reintroductions). A trail Scottish reintroduction in Knapdale will end in 2013.

After centuries of human intervention, public bodies are now spending huge sums of money to restore the functions that beavers used to perform in an attempt to reduce flood risk and slow the flow caused by heavy rainfall. Beavers could potentially serve as an innovative and “natural” partner to our Natural Flood Management plans in the Cairngorms.

Action: Further explore the potential for, and the implications of, river catchments in the Cairngorms National Park to host either a trial or full reintroduction.

4.3 Montane, Moorland and Grassland

Montane and moorland

The Cairngorm mountains are widely considered to be one of the most spectacular mountain areas in Britain, recognised nationally and internationally for the quality of its geology, geomorphology and topographic features, and associated soils and biodiversity. Much of the high ground resembles mountain tundra found in the Arctic. No other part of Britain has so much high mountain terrain within such a comparatively small area.

Upland heathland is the most extensive habitat type in the Cairngorms National Park, frequently in mosaics with blanket bog. Upland heathland or heather moorlands comprise unploughed, non-wooded ground that has dwarf shrub vegetation lying below the tree line. The majority of these communities result from human activities associated with woodland clearance and prevention of natural tree regeneration by burning and grazing. Similar communities extend upwards into the montane zone, but the associated plant communities vary according to altitude, exposure and soil type.

Blanket bog is extensive across the National Park, and it supports the largest and highest tracts of montane bog in Britain. Blanket bog is the second most extensive habitat type after upland heath, which it is often found in association with. Blanket bog grades into wet upland heath, with the predominant vegetation type a *Calluna – Eriophorum* dominated blanket mire typical of cold wet high plateaux in northern Britain. It occurs in areas with deep peat deposits, an important part of Scotland's contribution to carbon storage.

The links between montane, heath and bog habitats and other habitats is extremely important for many species. The habitat mosaics that exist in the Cairngorms result in the high populations of several species that use more than one habitat as well as being important for some species that particularly use edge habitats.

Grassland

Generally, the farmland and grassland habitats in the Cairngorms have been managed in a less intensive manner than other areas in the UK. Consequently, many of these areas are important or exceptional because of their historical human management, not in spite of it.

The National Park appears to contain only a very small proportion of the UK's calcareous grassland. Nevertheless, these areas do contain several rare plants, which may be significant in a Scottish context. The small, fragmented lowland and upland hay meadows in the National Park are unlikely to be of national significance, but are locally important for biodiversity. The Cairngorms is one of only two areas in Scotland in which pockets of natural serpentine debris are developed with Calaminarian grasslands.

Habitats included under this are Upland heath (UKBAP), Calaminarian Grasslands and rocky outcrops (UKBAP), Blanket Bog (UKBAP), Arctostaphylos Heath (local priority), montane heaths (UKBAP), Upland Calcareous grassland (UKBAP), Upland Hay Meadows (UKBAP), Unimproved neutral grasslands (local priority of national significance) and Acid grassland (local habitat).

MOORLAND, MONTANE AND GRASSLANDS			
AREAS OF WORK	ACTION	WHO	WHAT
Enhancing the quality of moorland and montane habitats.	Restore and enhance blanket bog habitats	SNH	Identify potential restoration sites
		CNPA, SNH	Source climate change/carbon funding to support restoration
		SNH, SLE	Develop and deliver restoration projects
	Restore the full community of raptor species	SLE, WES	Trial innovative techniques to increase raptor populations
		CNPA, SNH, ACES	Initiate a human dimensions project to investigate conflict resolution
Identifying and protecting important sites	Identify key moorland and montane sites for biodiversity	CNPA, SNH, NTS, BCS	Audit and map <i>Arctostaphylos</i> heath
		CNPA, SNH	Audit and assess the condition of Calaminarian grassland
		SWWI partners	Undertake research into the importance to wader species, particularly curlew
		Local invertebrate specialists	Initiate research on rare upland invertebrates
	Identify key grassland sites for biodiversity	Local specialists and groups, SNH	Audit, assess and map key grassland sites
	Discourage changes in management practises detrimental to the biodiversity value	CNPA, SNH, SLE	Negotiate management agreements with landowners on important sites

KEY SPECIES FOR FOCUSED ACTION			
Golden eagle <i>Aquila chrysaetos</i>	Increase awareness of issues affecting populations	RSPB, CNPA, HFW, SLE, SGA	Continue and expand Raptor Track project to help address raptor persecution and wildlife crime
		Raptor Study Groups	Monitor nest sites and share data
	Increase the availability of prey and food sources.	SLE, SGA, WES	Ensure mountain hares are not excessively culled
		Land managers	Leave deer carcasses or remains out on the hill
Alpine sow thistle <i>Cicerbita alpina</i>	Find out more about status and requirements	RBGE, JHI, Plantlife, Universities, CRPP	Research the sexual and vegetative reproductive biology
		RBGE, BSBI, Rangers, Plantlife, CRPP	Establish a monitoring protocol and survey known sites every 3 years
	Protect existing and create new populations	CRPP	Negotiate management agreements for existing populations
		RBGE, CRPP	Reinforce current populations and introduce (or reintroduce) the species at new sites
Woolly willow <i>Salix lanata</i>	Protect existing populations	SNH, SLE, CRPP	Negotiate management agreements to enable populations to become self-regenerating
		RBGE, Local Willow Group, volunteers	Monitor selected populations

	Create new populations (as part of a landscape-scale montane woodland project)	RBGE, NTS, HAG, Local Willow Group, volunteers, HB	Grow seed and cuttings from local sites for planting schemes
		RBGE, Local Willow Group, HB	Initiate translocation projects
Small white orchid <i>Pseudorchis albida</i>	Find out more about status and requirements	RBGE, Hutton, Plantlife, Universities, CRPP	Research the sexual and vegetative reproductive biology
		RBGE, BSBI, Rangers, Plantlife, CRPP	Establish a monitoring protocol and survey known sites every 3 years
		CRPP	Develop experimental trials
Powdered sunshine lichen <i>Vulpicida pinastri</i>	Monitor sites	Plantlife, BSBI, BLS, local experts, CNPA	Identify and monitor key areas
	Encourage appropriate habitat management and creation	BSBI, BLS, local experts, FCS, SNH	Identify woodland schemes that may impact upon lichen communities
		FCS, SNH, RSPB, NTS	Enhance and expand areas of juniper scrub
		BSBI, BLS, local experts, FCS, SNH, Plantlife, CNPA	Provide advice to land managers
	RSPB, SNH, FCS, Plantlife	Investigate opportunities for translocation	

Small Dark Yellow Underwing <i>Anarta cordigera</i>	Find out more about status and requirements	BCS, SNH, volunteers	Promote and co-ordinate surveys via survey days/workshops and web sites
		BCS, SNH, volunteers	Monitor selected sites annually
		BCS, universities, SNH, volunteers	Encourage studies into habitat and management needs
A mining bee <i>Andrena marginata</i>	Find out more about requirements	Hymettus, Universities, Hutton	initiate research into the species habitat and food plant needs
	Protect existing populations and encourage expansion	Hymettus, HBRG	Monitor known and potential sites
		Hymettus, Fishery Trusts, golf courses, land managers, local authorities	Continue existing, and encourage new, sympathetic management regimes within and adjacent to known sites
TARGETS			
Five blanket bogs will have been restored			
There will be an increase in the populations of key species			
A register of important sites will be maintained			

Birds of the Bush - Ring Ouzel *Turdus torquatus*

Ring ouzels are in severe decline in the UK (over 50% in the last 25 years) and have shown a very marked contraction in range. In Scotland ring ouzels are generally found in open heather moorland, but the same subspecies in Scandinavia breeds in a mosaic of montane scrub with patches of grass and rocks.

Montane scrub, the mix of low lying dwarf willow and birch bushes between the natural tree line and the open hill, is a habitat type that is essentially missing from the Scottish landscape. This is a result, at least in part, to past human management with grazing and fire, from prehistory to the present. This natural transition zone is, for most people, also missing in our thoughts of what a natural landscape should be. Montane scrub is among the rarest natural feature of the Scottish landscape with tiny remnants now often restricted to cliffs, crags and boulder fields away from grazing pressure. In Scandinavia this habitat is common and supports a rich biodiversity.

Evidence suggests that this scrub habitat would also be beneficial for black grouse and potentially improve the breeding prospects for rare breeders like brambling, redwing and fieldfare as well as species that would probably otherwise be here such as bluethroat and Lapland bunting.

Action: Establish a landscape-scale montane scrub project

Underneath our feet – Scarlet waxcap *Hygrocybe punicea*

Some of the biggest organisms living on our grasslands are not the sheep on top of the grass, but the fungi underneath it - the mycelia of fungi like waxcaps spread far and wide. The fungi only reveal themselves briefly each year, the mushrooms appearing like the tips of icebergs, the mycelia however is a vital part in a healthy ecosystem. Fungi are critical in carbon and nutrient cycling, root function in plants, and as a food source for a very wide range of organisms.

Waxcaps are very sensitive to the high nitrogen content of artificial fertiliser and are indicators of ancient unfertilised grassland. A good site may contain a dozen to twenty species; a site that has been treated with artificial fertiliser is unlikely to have more than one or two species. Many of the grasslands in the National Park have been grasslands for a long time and are important sites for nationally rare species.

Action: Find out more about the species' status, distribution and management needs.

4.4 Involving People

With around 17,000 people permanently living in the Cairngorms National Park and 1.3million people visiting it every year, the Park is an attractive place for many. The relationships people have with the landscapes they live, work and recreate in are fundamental to the health of the nature of the Cairngorms National Park.

Understanding - Appreciation – Protection

We want people to care intellectually and emotionally about the wildlife in the Cairngorms National Park, to feel proud of their natural heritage and become informed and passionate advocates for it.

We believe that through understanding and developing knowledge about the significance of our natural heritage and about the way we manage our countryside, people will appreciate it more; and in appreciating what we've got, want to do something to safeguard the benefits we get from it.

Realising the benefits

We want more people to understand and enjoy the social, economic and environmental benefits nature brings. Most of us enjoy being in nature, from quiet, peaceful reflection to adrenaline-fuelled adventure. We know that being in nature makes us healthier – both physically and mentally.

The nature of the Cairngorms National Park defines where we live and is a primary part of our shared community identity. Tourism and land based business are central to our economy. The landscapes we live and work in affect the pounds in our pockets and the value of our homes.

The way that floods affect people's homes depends on how the land is used in the surrounding catchment; food resources depend on clean water and productive soils; and the carbon released through what we do could affect our climate.

Making a contribution

We can all make a difference to the nature of the Cairngorms National Park and in turn to the good things that we get from it. We would like to see a whole range of opportunities for people to put something back, to help protect and enhance our nature – from businesses and visitors supporting big landscape scale projects to school projects putting up a bird box.

Volunteers can take a great deal of pride and feel a high degree of ownership through seeing the positive change their efforts have brought about. There are opportunities for skills development and for communities to take more control of their natural heritage, learning about and from it. Raising awareness and understanding and forming a close bond between people and place will lead to more and better informed debates and the establishment of a valuable connection between expert and community values.

Getting the message out

In order to inspire and encourage involvement, highlight the opportunities available, motivate, reward and support volunteers and ambassadors, we need to communicate effectively.

There is a huge amount of good conservation work taking place in the National Park, and there will be more. Through targeted and focussed communications, we can bring this together to paint a picture of the whole that is greater than the sum of its parts.

We will focus our actions on working with the following key groups:

- Residents
- Young people
- Key influencers
- Tourism based businesses
- Land managers

And in communicating the following messages:

- The Cairngorms National Park is an outstanding place for nature. It is nationally and internationally significant and is arguably one of the most important areas in the UK.
- Conservation in the Cairngorms National Park is a collective and cumulative effort. Different land managers, groups and individuals are all doing work for the benefit of nature in the Park.
- We want people to get out and enjoy the wildlife in the National Park, to engage with it and realise the benefits it brings.
- Volunteering, in lots of different ways, makes a real and positive difference to the health of nature of the Park. Everyone is welcome and there are many ways to get involved.

INVOLVING PEOPLE			
AREAS OF WORK	ACTION	WHO	WHAT
Inspiring and engaging	Create, support and celebrate a network of ambassadors	CNPA	Develop and implement a stakeholder engagement plan
		CNPA	Produce and manage a communications toolkit with supporting resources
		CBP	Develop and roll-out 'Make it Yours' - a programme of training and support for NP based businesses

		CNPA	Develop and maintain networks for sharing expertise and disseminating information
		CNPA, SLE, CBP	Host annual awards ceremony championing positive work
		CNPA, FCS, SNH, SLE, WES	Deliver biannual Cairngorms Nature partnership event
	Communicate the significance of the natural heritage, the benefits people derive from it and the work being done to protect and enhance it.	CNPA	Develop and maintain a Cairngorms Nature website and any associated social media activity
		CNPA, SNH, FCS	Publish a range of media
		WES	Improve the understanding and perception of estates and what they deliver in terms of biodiversity
	Promote and maximise exposure of the Cairngorms Nature identity	RSPB, SNH, FCS, NTS, SLE, DFT	Joint-brand and position activities and projects relevant to Cairngorms Nature
		CNPA	Encourage and facilitate use of the identity by others
	Further develop work with young people	CNPA, FCS, RSPB, SNH	Develop schools resource
		JMA, Junior Rangers	Include Cairngorms Nature information in programmes of activity
	Recognise, support and strengthen the role of key visitor attractions	CNPA, CBP	Provide training, knowledge and support
		CNPA, CBP	Co-ordinate distribution and display of Cairngorms Nature publications
		SNH	Promote NNR's as flagships for finding out about Cairngorms nature

		RSPB, NTS, SNH, FCS, RZSS, SLE	Include Cairngorms Nature information and interpretation in visitor centres
Providing opportunities	Help communities find ways to engage with and realise the value of their local wildlife	CNPA, CDO	Work with communities to assess the significance and desired benefits from local natural heritage assets
		CNPA, CDO, FCS, SNH	Facilitate communities developing management plans for local wildlife sites
		CNPA, CDO, Land Managers	Facilitate awareness raising and communication between communities and local land managers
	Create and collate existing volunteering opportunities, promote and facilitate access to them.	Regional volunteer co-ordinators	Create and manage database for volunteering opportunities
		CNPA, CDO, Ranger Services	Raise awareness of opportunities and facilitate access to them
		Highlands Birchwoods, CNPA, FCS, SNH, RSPB, NTS	Support large scale projects to accommodate focussed volunteering efforts, donations and campaigns
		CNPA	Link volunteering with opportunities for skills development
	Develop opportunities for enterprises and visitors to support conservation	CNPA, CBP, COAT	Investigate and pursue options for a visitor payback scheme that includes options for caring for nature
	TARGETS		
There will be an increase in the number of volunteer days spent caring for nature in the National Park			
Activities and projects associated with the collective delivery of biodiversity gain will use the Cairngorms Nature strapline			

The John Muir Award

Many education programmes take people to the outdoors so they can learn about it. The John Muir Award is rather different. It's a flexible programme that allows people to make their own meaning or sense of a place through their experiences, rather than through teaching or learning. At the heart of the scheme is the simple power of awakening people to nature

People often see their local woods or hills slightly differently after doing the John Muir Award. We are all a little guilty of taking things for granted and the award helps us look again at the nature around us.

Action: Support the John Muir Award programme in raising awareness and understanding of the value and importance of nature in the Cairngorms

The Scottish Mink Initiative

In 2006 the Cairngorms National Park hosted the largest predator eradication programme in Europe as part of a project to halt the decline in water vole populations. The project was incredibly successful, helping the recovery of water voles and benefiting ground nesting birds and fish like salmon. The Rivers and Fisheries Trusts of Scotland (RAFTS) continues to run the Scottish Mink Initiative, working with a range of land owners, managers, agencies and communities to eradicate American mink throughout the North-East of Scotland.

Volunteers are fundamental to the success of the project monitoring and reporting mink activity and checking for footprints on the mink raft. The initiative provides equipment, support and training and through working closely with local groups and volunteers hopes to develop a long term strategy so the work continues after the initiative ends.

Action: continue to support mink eradication programmes in the National Park.

5 GLOSSARY

ACES	Aberdeen Centre for Environmental Sustainability
BAP	Biodiversity Action Plan
BASC	British Association for Shooting and Conservation
BBS	British Bryological Society
BCS	Butterfly Conservation Scotland
BDS	British Dragonfly Society
BLS	British Lichen society
BMS	British Mycological Society
BSBI	Botanical Society for the British Isles
CBP	Cairngorms Business Partnership
CDAG	Cairngorms Deer Advisory Group
CDO	Community Development Officer
CNPA	Cairngorms National Park Authority
COAT	Cairngorms Outdoor Access Trust
CRPP	Cairngorms rare Plants Project
DFT	Dee Fisheries Trust
FCS	Forestry Commission Scotland
FR	Forest Research
GWCT	Game and Wildlife Conservation Trust
HAG	Highland Aspen Group
HB	Highland Birchwoods
HBRG	Highland Biological Recording Group
HFW	Highland Foundation for Wildlife
JHI	James Hutton Institute
JMA	John Muir Award
NFUS	National Farmers Union Scotland
NTS	National Trust for Scotland
PAWS	Partnership for action Against Wildlife crime Scotland
RAFTS	Rivers And Fisheries Trusts Scotland
RBGE	Royal Botanic Gardens Edinburgh
RSPB	Royal Society for the Protection of Birds
RZSS	Royal Zoological Society Scotland
SAC	Scottish Agricultural College
SCA	Scottish Countryside Alliance

SEPA Scottish Environment Protection Agency
SGA Scottish Gamekeepers Association
SLE Scottish Land and Estates
SNH Scottish Natural Heritage
SWA Scottish Wildcat Association
SWWI Strathspey Wetlands and Waders Initiative
WES Wildlife Estates Scotland