Cairngorms
NATIONAL PARK
Pàirc Nàiseanta a' Mhonaidh Ruaidh

STRATEGY

Cairngorms National Park
Partnership Plan 2017-2022

Strategic Environmental Assessment Scoping Report

Appendix 2: Environmental Baseline

Topic 6: Biodiversity, Fauna and Flora

November 2015

Topic 6: Biodiversity, Fauna and Flora

> "*Biodiversity – the variety of Life on Earth – makes our planet habitable and beautiful. We depend on it for food, energy, raw materials, air and water that make life possible and drive our economy. We look to the natural environment for equally important things like aesthetic pleasure, artistic inspiration and recreation.*"
>
> European Commission Natura 2000.

The Cairngorms National Park is a haven for nature and wildlife and is of great significance for Scotland and the UK. The National Park covers less than two per cent of the UK landmass but is home to 25% of its rare animal, insect, lichen, fungi and insect species. Habitats are rich and varied and include the montane alpine plants high on the Cairngorms plateaux, the sources of renowned salmon rivers the Spey, Dee, Tay and South Esk and stands of trembling Aspen in Strathspey which support rare insects and fungi.

Protected Areas

Protected areas represent the very best of Scotland's landscapes, plants and animals, rocks, fossils and landforms. Their protection and management will help to ensure that they remain in good health for all to enjoy, both now and for future generations.

The Cairngorms National Park is home to a number of areas designated to meet the needs of international directives and treaties, national legislation and policies as well as more local needs and interests.

National Designations

National designations cover a range of different types of protected area, including Natural Nature Reserves (NNR) and Sites of Special Scientific Interest (SSSI), both of which are located within the Cairngorms National Park. The National Park is also home to a number of non-statutory protected sites, such as the RSPB reserve at Loch Garten.

National Nature Reserves

NNRs are statutory nature reserves designed under Part III of the National Parks and Access to the Countryside Act 1949. Most reserves have habitats and species that are nationally or internationally important so the wildlife is managed very carefully. However, people are also encouraged to enjoy NNRs too and so most have some form of visitor facilities that are designed to ensure recreational activities are not pursued without heed for the wildlife and habitat that exists there.

The Cairngorms National Park is home to 11 NNRs[1] (**Table 12** and **Figure 56**), which cover a combined area of around 513 km^2.

[1] While the Cairngorms NNR and Morrone Birkwood NNR are technically both declared NNRs (see **Table 12**), they are under review and not managed or promoted as NNRs.

The NNRs are run by a range of organisations. For example, most of the Abernethy and Inch Marshes NNRs are also managed as part of RSPB reserves.

Table 12 National Nature Reserves in the Cairngorms National Park.

Site Code	Name	Year Est.	Area (ha)
5013	Cairngorms	1954	25,963.63
5020	Craigellachie	1960	257.46
5023	Dinnet Oakwood	1966	30.8
5032	Glen Tanar	1979	4,186.76
5051	Morrone Birkwood	1972	226.48
5054	Muir of Dinnet	1977	1,166.17
8628	Insh Marshes	2003	695.18
8670	Corrie Fee	2005	165.38
10097	Invereshie and Inshriach	2007	3,730.86
10098	Glenmore	2007	2,119.49
10099	Abernethy	2007	12,753.81

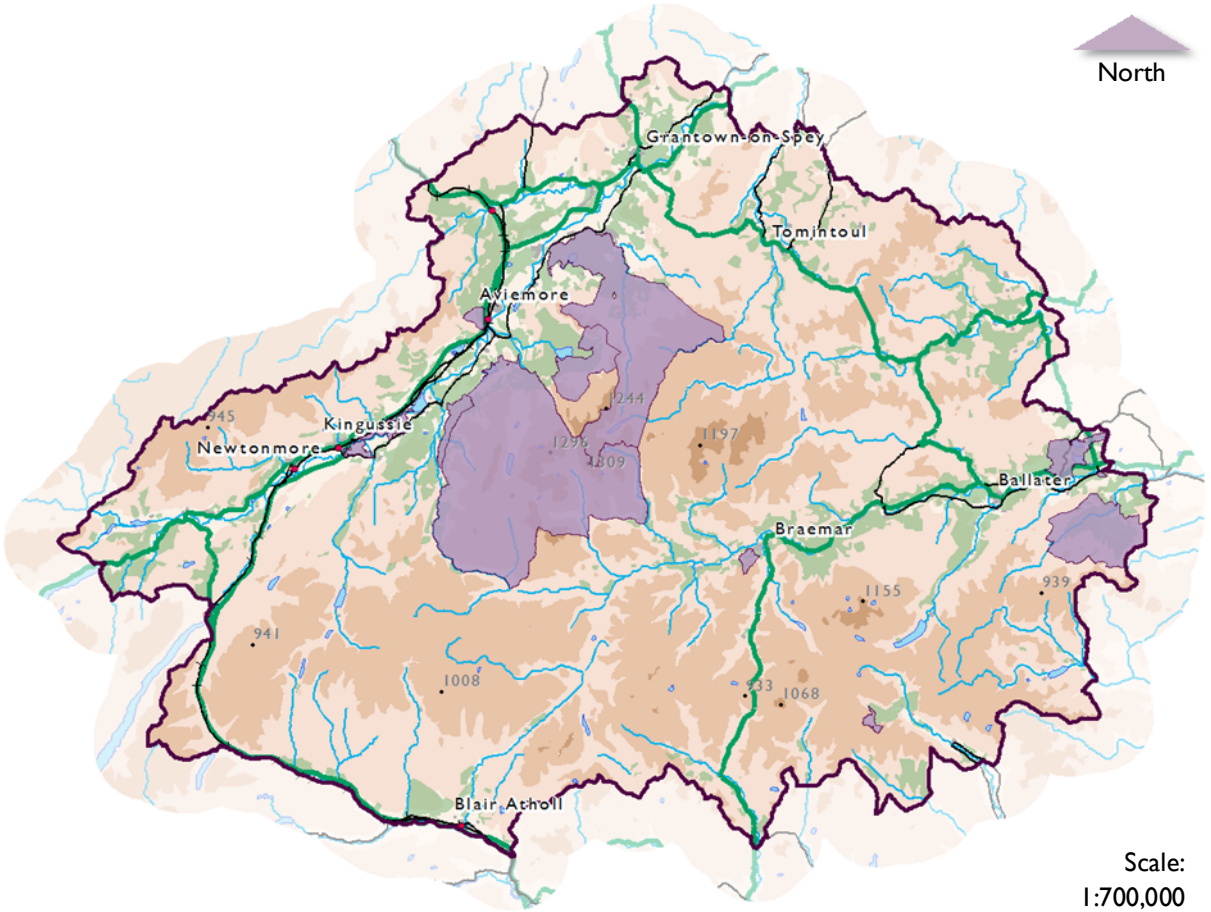

Figure 1 National Nature Reserves in the Cairngorms National Park.

Sites of Special Scientific Interest

Designated under the Nature Conservation (Scotland) Act 2004, SSSIs are those areas of land and water that SNH considers to best represent Scotland's natural heritage - its diversity of plants, animals and habitats, rocks and landforms, or a combinations of such natural features (see **Figure 57** and **Figure 58**).

They are the essential building blocks of Scotland's protected areas for nature conservation and therefore many are also designated as Natura 2000 sites.

Only SSSIs designated with biological (i.e. flora and fauna) notifiable features are considered under this sections (**Table 13**). SSSIs designated solely for geological or physiographical features are therefore not covered and **Topic 4: Soil** (p. 85) and **Topic 5: Material Assets** (p. 96) should be consulted for further information.

Table 13 Condition of Biological and Mixed SSSIs located within the Cairngorms National Park.

Site Code	Name	Type	Total Area (ha)	Area in CNP (ha)	Biological Interest in Favourable Condition	Biological Interest in Unfavourable Condition
9	Abernethy Forest	Mixed	5793.46	5793.46	Native pinewood; Basin fen; Raised bog; Crested tit; Capercaillie; Osprey; Breeding bird assemblage; Vascular plant assemblage; Fungi assemblage; Lichen assemblage; Invertebrate assemblage; Beetle assemblage; Dragonfly assemblage.	Subalpine dry heath.
30	Aldclune and Invervack Meadows	Biological	16.61	16.61		Lowland calcareous grassland
53	Alvie	Biological	339.01	339.01	Invertebrate assemblage; Goldeneye.	Upland oak woodland.
161	Beinn a' Ghlo	Mixed	8084.76	7763.08	Upland birch woodland; Upland assemblage; Vascular plant assemblage; Breeding bird assemblage; Acidic scree; Geyer's whorl snail; Round-mouthed whorl snail; Atlantic salmon; Otter.	Bryophyte assemblage; Alpine and subalpine heaths; Base-rich fens; Blanket bog; Dry grasslands and scrublands on chalk or limestone; Dry heaths; Hard-water springs depositing lime; High-altitude

Site Code	Name	Type	Total Area (ha)	Area in CNP (ha)	Biological Interest in Favourable Condition	Biological Interest in Unfavourable Condition
						plant communities associated with areas of water seepage; Montane acid grasslands; Plants in crevices on acid rocks; Plants in crevices on acid rocks; Species-rich grassland with mat-grass in upland areas.
223	Blair Atholl Meadow	Biological	0.55	0.55		Lowland calcareous grassland
235	Bochel Wood	Biological	197.87	197.55	Upland birch woodland	
282	Caenlochan	Biological	4974.75	4974.75	Dystrophic loch, Bryophyte assemblage, Breeding bird assemblage	Montane assemblage, Vascular plant assemblage,
288	Cairngorms	Mixed	29226.7	29226.70	Breeding bird assemblage; Bryophyte assemblage; Dotterel; breeding, Fungi assemblage; Golden eagle, breeding, Invertebrate assemblage, Native pinewood, Dystrophic and oligotrophic lochs, Ptarmigan. Breeding; Snow bunting, breeding; Vascular plant assemblage.	
291	Cairnwell	Biological	22.96	22.96	Alpine calcareous grassland.	
415	Coyles of Muick	Biological	122.52	122.52	Calaminarian grassland and serpentine heath; Subalpine flushes.	
419	Craig Leek	Biological	185.13	185.13	Native pinewood.	Subalpine calcareous grassland.
428	Craigellachie	Biological	379.85	379.85	Upland birch woodland; Moth assemblage.	

Site Code	Name	Type	Total Area (ha)	Area in CNP (ha)	Biological Interest in Favourable Condition	Biological Interest in Unfavourable Condition
429	Craigendarroch	Biological	67.07	67.07		Upland oak woodland.
452	Crathie Wood	Biological	193.34	29.06	Native pinewood.	
455	Creag Dhubh	Biological	1052.31	1052.31		Upland birch woodland.
457	Creag Meagaidh	Biological	7033.13	507.19	Rocky slopes (including inland cliff, rocky outcrops, chasmophytic vegetation); Upland assemblage; Breeding bird assemblage.	Vascular plant assemblage.
460	Creag nan Gamhainn	Biological	15.75	6.20	Upland birch woodland, Lowland calcareous grassland; Lowland neutral grassland; Springs (including flushes).	
514	Dinnet Oakwood	Biological	19.73	19.73	Upland oak woodland.	
541	Drumochter Hills	Biological	9688.13	7625.11	Breeding bird assemblage; Montane assemblage.	Vascular plant assemblage.
593	Eastern Cairngorms	Mixed	16503.42	16503.42	Dystrophic and oligotrophic lochs, Breeding bird assemblage; Bryophyte assemblage, Vascular plant assemblage; Arctic charr.	Native pinewood; Invertebrate assemblage.
646	Fodderletter	Biological	3.08	1.19	Lowland acid grassland; Springs (including flushes).	
670	Garbh Choire	Biological	229.32	229.32		Alpine flush' Bryophyte assemblage; Spring-head; rill and flush; Upland assemblage; Vascular plant assemblage.
693	Glas Tulaichean	Biological	456.43	456.43	Vascular plant assemblage.	

Site Code	Name	Type	Total Area (ha)	Area in CNP (ha)	Biological Interest in Favourable Condition	Biological Interest in Unfavourable Condition
702	Glen Callater	Biological	1513.01	1513.01	Blanket bog; Breeding bird assemblage; Bryophyte assemblage; Oligotrophic loch; Spring-head rill and flush; Tall-herb ledge;	Vascular plant assemblage.
705	Glen Ey Gorge	Mixed	41.24	41.24	Subalpine dry heath.	
708	Glen Fender Meadows	Biological	96.15	96.15	Lowland dry heath; Lowland calcareous grassland; Vascular plant assemblage.	Springs (including flushes).
724	Glen Tanar	Biological	4180.09	4142.25	Invertebrate assemblage; Fungi assemblage; Native pinewood; Subalpine dry heath.	Capercaillie.
726	Glen Tilt Woods	Biological	15.02	9.40	Upland mixed ash woodland.	
742	Green Hill of Strathdon	Biological	640.77	640.77	Calaminarian grassland and serpentine heath; Subalpine flushes, Moorland juniper; Subalpine dry heath.	
807	Inchrory	Mixed	1089.93	1089.93	Vascular plant assemblage; Mountain whorl snail.	
864	Kinveachy Forest	Biological	5325.7	3728.87	Breeding bird assemblage.	Native pinewood.
887	Ladder Hills	Biological	4357.94	4357.94	Upland assemblage; Alpine heath; Blanket bog.	Subalpine dry heath.
968	Loch Brandy	Biological	98.98	98.98	Bryophyte assemblage; Oligotrophic loch.	
1014	Loch Moraig	Biological	33.46	33.46	Springs (including flushes); Mesotrophic loch.	
1065	Loch Vaa	Biological	44.6	44.60	Beetles.	Goldeneye, breeding; Slavonian grebe.

Site Code	Name	Type	Total Area (ha)	Area in CNP (ha)	Biological Interest in Favourable Condition	Biological Interest in Unfavourable Condition
1108	Lower Strathavon Woods	Biological	293.47	0.00	Upland oak woodland; Wet woodland.	Upland birch woodland,
1180	Monadhliath	Biological	10671.11	7120.93	Upland assemblage; Breeding bird assemblage.	Blanket bog; Dotterel, breeding, Vascular plant assemblage.
1190	Morrone Birkwood	Biological	328.34	328.34	Spring-head; rill and flush; Subalpine calcareous grassland; Alpine heath, Bryophyte assemblage; Invertebrate assemblage.	Upland birch woodland; Juniper scrub; Vascular plant assemblage.
1194	Morven and Mullachdubh	Biological	2508.35	2345.72	Alpine heath; Moorland juniper.	
1212	Muir of Dinnet	Mixed	2308.59	15.54	Oligo-mesotrophic loch;, Lowland wet heath.	Lowland dry heath; Breeding bird assemblage; Greylag goose; non-breeding; Invertebrate assemblage.
1241	North Rothiemurchus Pinewood	Mixed	1509.75	1509.75	Breeding bird assemblage; Crested tit; Osprey; Fungi assemblage; Lichen assemblage; Invertebrate assemblage.	Native pinewood.
1243	Northern Corries, Cairngorms	Mixed	1966.37	1966.37	Breeding bird assemblage; Vascular plant assemblage; Scrub; Upland assemblage.	
1274	Pass of Killiecrankie	Biological	62.24	5.55	Fly assemblage.	Upland oak woodland.
1364	River Spey - Insh Marshes	Biological	1158.77	1158.77	Arctic charr; Flood-plain fen; Invertebrate assemblage; Mesotrophic loch; Osprey; Otter; Vascular plant assemblage; Whooper swan.	
1504	Struan Wood	Biological	82.82	0.00	Beetles.	Upland birch woodland; Moth (*Ancylis tineana*)

Site Code	Name	Type	Total Area (ha)	Area in CNP (ha)	Biological Interest in Favourable Condition	Biological Interest in Unfavourable Condition
1665	Glenmore Forest	Biological	1440.38	1237.26	Capercaillie; Narrow-headed ant; Vascular plant assemblage; Native pinewood.	
1696	Fafernie	Biological	252.44	252.44	Breeding bird assemblage; Dotterel.	
1697	Creag Clunie and the Lion's Face	Biological	251.94	251.94	Capercaillie, breeding; The lichen *Gyalecta ulmi*, Native pinewood.	
1699	River Spey	Mixed	1958.79	346.30	Sea lamprey; Otter	Atlantic salmon; Freshwater pearl mussel.
1709	Forest of Clunie	Biological	19476.61	233.80	Black grouse, breeding; Osprey, breeding; Short-eared owl, breeding; Breeding bird assemblage.	Hen harrier, breeding.

There are 59 SSSIs within or overlapping the National Park. Of these, 50 have biological notifiable features, covering an area of around 1,120 km^2 (or 25% of the National Park's area). Of these, 28 have at least one notifiable interest that is in unfavourable condition. 5 SSSIs, namely Aldclune and Invervack Meadows, Blair Atholl Meadow, Craigendarroch, Creag Dhubh and Garbh Choire, have no interests in favourable condition.

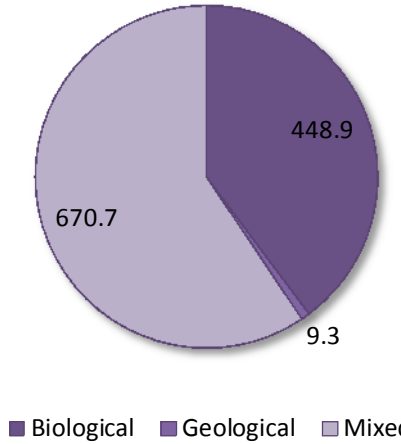

Figure 57 Area (km^2) covered by the three types of SSSI within the Cairngorms National Park.

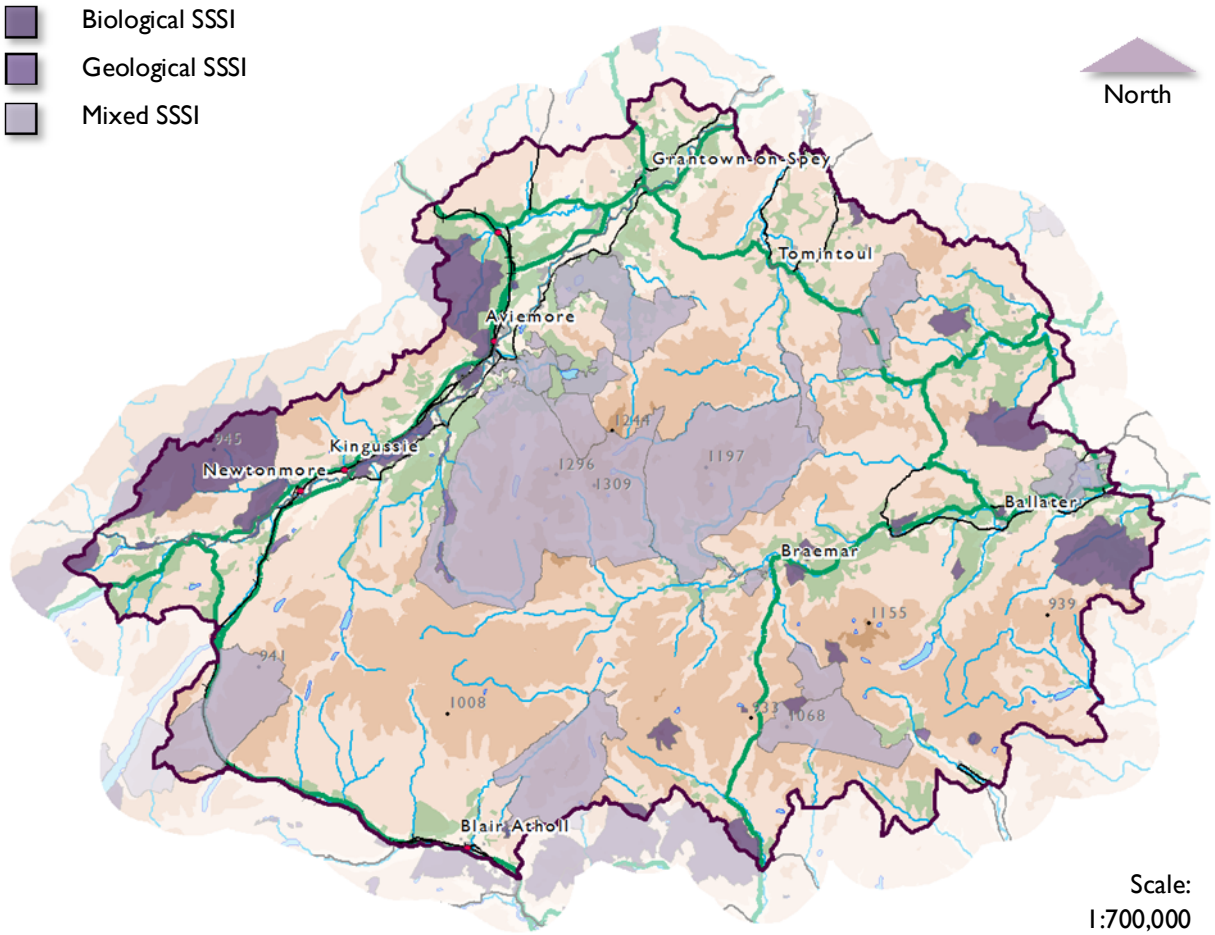

Figure 58 Sites of Special Scientific Interest by type within and overlapping the Cairngorms National Park Authority.

International Designations

Natura 2000 Network

Nearly half of the Cairngorms National Park is designated within the Natura 2000 network, sites which are considered the best for wildlife in Europe (**Table 14**).

There are two types of Natura 2000 site within the National Park, namely Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

SACs are strictly protected sites designated under the EC Habitats Directive. Article 3 of the Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended). The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds). Of the UK's 78 Annex I habitat types (of which 26 are marine and coastal and therefore not relevant to the National Park), 33 occur in the National Park. Of the UK's 33 Annex II species (of which 4 are marine and coastal and therefore not relevant to the National Park), 10 are native to, and normally resident in, the National Park.

SPAs are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species. 35 of these Annex I species can be found within the Cairngorms National Park, with SPAs designated to protect populations of 15 of them.

Table 14 Natura 2000 Sites within the Cairngorms National Park.

Site Code	Name	Status	Total Area (ha)	Area in CNP (ha)	Qualifying Features in Favourable Condition	Qualifying Features in Unfavourable Condition
UK9002561	Abernethy Forest	SPA	5793.46	5793.46	Capercaillie, breeding; Osprey, breeding.	
UK9020297	Anagach Woods	SPA	392.78	392.78	Capercaillie, breeding.	
UK0012957	Beinn a' Ghlo	SAC	8084.76	7762.25	Round-mouthed whorl snail; High-altitude plant communities associated with areas of water seepage; Species-rich grassland with mat-grass in upland areas; Plants in	Base-rich fens; Dry grasslands and scrublands on chalk or limestone; Montane acid grasslands; Dry heaths; Hard-water springs depositing lime.

Site Code	Name	Status	Total Area (ha)	Area in CNP (ha)	Qualifying Features in Favourable Condition	Qualifying Features in Unfavourable Condition
					crevices on acid rocks; Alpine and subalpine heaths; Geyer's whorl snail; Blanket bog; Plants; Acidic scree in crevices on base-rich rocks	
UK0030030	Ballochbuie	SAC	1881.73	1881.73	Otter; Plants in crevices on acid rocks; Plants in crevices on base-rich rocks.	Bog woodland; Caledonian forest; Blanket bog; Dry heaths; Wet heathland with cross-leaved heath.
UK9002781	Ballochbuie	SPA	1881.73	1881.73		Capercaillie, breeding.
UK0012821	Caenlochan	SAC	5204.16	5204.16	High-altitude plant communities associated with areas of water seepage; Tall herb communities; Plants in crevices on base-rich rocks; Plants in crevices on acid rocks; Grasslands on soils rich in heavy metals; Base-rich scree.	Mountain willow scrub; Acidic scree; Montane acid grasslands; Dry heaths; Blanket bog; Alpine and subalpine heaths; Species-rich grassland with mat-grass in upland areas; Base-rich fens.
UK9004011	Caenlochan	SPA	5975.28	5975.28	Golden eagle, breeding; Dotterel, breeding.	
UK0016412	Cairngorms	SAC	57685.02	57685.02	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels; Acid peat-stained lakes and ponds; Tall herb communities; Hard-water springs depositing lime; Plants in crevices on acid rocks; Acidic scree; Juniper on heaths or calcareous grasslands; Very wet mires often identified by	Caledonian forest; Dry grasslands and scrublands on chalk or limestone; Blanket bog; Alpine and subalpine heaths; Dry heaths; Mountain willow scrub; Wet heathland with cross-leaved heath; Species-rich grassland with mat-grass in upland areas; Plants in crevices on base-rich rocks;

Site Code	Name	Status	Total Area (ha)	Area in CNP (ha)	Qualifying Features in Favourable Condition	Qualifying Features in Unfavourable Condition
					an unstable 'quaking' surface; Green shield-moss; Otter; Bod woodland.	Montane acid grasslands; High-altitude plant communities associated with areas of water seepage.
UK9002241	Cairngorms	SPA	50903.74	50903.74	Capercaillie, breeding; Golden eagle, breeding; Osprey, breeding; Peregrine, breeding.	Dotterel, breeding.
UK9020308	Cairngorms Massif	SPA	187504.06	173254.64		
UK0030122	Coyles of Muick	SAC	135.16	135.16	Grasslands on soils rich in heavy metals.	
UK9001801	Craigmore Wood	SPA	654.09	654.09		Capercaillie, breeding.
UK0012955	Creag Meagaidh	SAC	6144.58	507.19	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels; Plants in crevices on base-rich rocks; Plants in crevices on acid rocks.	Alpine and subalpine heaths; Mountain willow scrub; Tall herb communities; Wet heathland with cross-leaved heath; Montane acid grasslands; Dry heaths; Blanket bog; Acidic scree.
UK9002161	Creag Meagaidh	SPA	2872.64	71.18		Dotterel, breeding.
UK0013584	Creag nan Gamhainn	SAC	15.75	15.75	Hard-water springs depositing lime.	
UK0030134	Dinnet Oakwood	SAC	19.73	19.73	Western acidic oak woodland.	
UK0012942	Drumochter Hills	SAC	9445.56	7382.22	Acidic scree.	Alpine and subalpine heaths; Montane acid grasslands; Plants in crevices on acid rocks; Dry

Site Code	Name	Status	Total Area (ha)	Area in CNP (ha)	Qualifying Features in Favourable Condition	Qualifying Features in Unfavourable Condition
						heaths; Mountain willow scrub; Wet heathland with cross-leaved heath; Blanket bog; Species-rich grassland with mat-grass in upland areas; Tall herb communities.
UK9002301	Drumochter Hills	SPA	9445.56	7382.22	Dotterel, breeding.	Merlin, breeding.
UK9004381	Forest of Clunie	SPA	19349.38	905.22	Osprey, breeding.	Merlin, breeding; Hen harrier, breeding; Short-eared owl, breeding.
UK0012756	Glen Tanar	SAC	4180.09	4142.25	Caledonian forest; Wet heathland with cross-leaved heath; Otter; Dry heaths; Blanket bog.	
UK9002771	Glen Tanar	SPA	4180.09	4142.25	Hen harrier, breeding; Osprey, breeding.	Capercaillie, breeding.
UK0030159	Green Hill of Strathdon	SAC	640.77	640.77	Dry heaths; Grasslands on soils rich in heavy metals; Juniper on heaths or calcareous grasslands.	
UK0019812	Insh Marshes	SAC	1158.78	1158.78	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels; Otter; Very wet mires often identified by an unstable 'quaking' surface.	Alder woodland on floodplains.
UK0012759	Kinveachy Forest	SAC	2849.36	2232.59		Bog woodland; Caledonian forest.
UK9002581	Kinveachy Forest	SPA	2849.36	2232.59	Capercaillie, breeding.	

Site Code	Name	Status	Total Area (ha)	Area in CNP (ha)	Qualifying Features in Favourable Condition	Qualifying Features in Unfavourable Condition
UK00 30179	Ladder Hills	SAC	4357.94	4357.94	Blanket bog; Alpine and subalpine heaths.	Dry heaths;
UK90 02951	Ladder Hills	pSPA	4240.4	4240.4		
UK90 02751	Loch Vaa	SPA	44.6	44.6	Slavonian grebe, breeding.	
UK90 02281	Lochnagar	SPA	1431.28	1431.28	Dotterel, breeding.	
UK00 30210	Monadhliath	SAC	10671.11	7121.03		Blanket bog.
UK00 12894	Morrone Birkwood	SAC	318.4	318.4	Base-rich fens; Hard-water springs depositing lime; High-altitude plant communities associated with areas of water seepage; Dry grasslands and scrublands on chalk or limestone; Alpine and subalpine heaths.	Geyer's whorl snail; Juniper on heaths or calcareous grasslands.
UK00 19958	Morven & Mullachdubh	SAC	916.76	916.76	Juniper on heaths or calcareous grasslands	
UK00 19959	Muir of Dinnet	SAC	415.76	415.76	Otter; Plants in crevices on acid rocks; Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels; Degraded raised bog.	Very wet mires often identified by an unstable 'quaking' surface; Dry heaths.
UK90 02791	Muir of Dinnet	SPA	157.6	157.6		Waterfowl assemblage, non-breeding; Greylag goose, non-breeding.
UK00 30251	River Dee	SAC	2446.82	1368.59	Otter; Atlantic salmon.	Freshwater pearl mussel.

Site Code	Name	Status	Total Area (ha)	Area in CNP (ha)	Qualifying Features in Favourable Condition	Qualifying Features in Unfavourable Condition
UK00 30262	River South Esk	SAC	478.62	103.48		Atlantic salmon; Freshwater pearl mussel.
UK00 19811	River Spey	SAC	5729.48	4181.76	Sea lamprey; Otter.	Atlantic salmon; Freshwater pearl mussel.
UK90 02231	River Spey – Insh Marshes	SPA	1158.87	1158.87	Hen harrier, non-breeding; Osprey, breeding; Whooper swan, non-breeding; Spotted crake, breeding.	Wigeon, breeding; Wood sandpiper, breeding.
UK00 30312	River Tay	SAC	9497.72	233.94	Atlantic salmon; Sea lamprey; River lamprey; Brook lamprey; otter; Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels.	
UK00 30348	The Maim	SAC	484.58	484.58		Dry heaths.

There are 23 SACs within or overlapping the National Park (**Figure 59**), covering an area of around 1,063 km^2 (or 24% of the National Park's area). Of these, 16 have at least one qualifying feature that is in unfavourable condition. 4 SACs, namely Monadhliath, River South Esk, Kinveachy Forest and The Maim, have no qualifying features in favourable condition. It should be noted that the majority of the River South Esk SAC is located outwith the National Park boundary and therefore the CNPA has only limited influence over its status.

Around 53% of the land area protected as an SAC falls within the Cairngorms SAC, which is the third largest in Scotland.

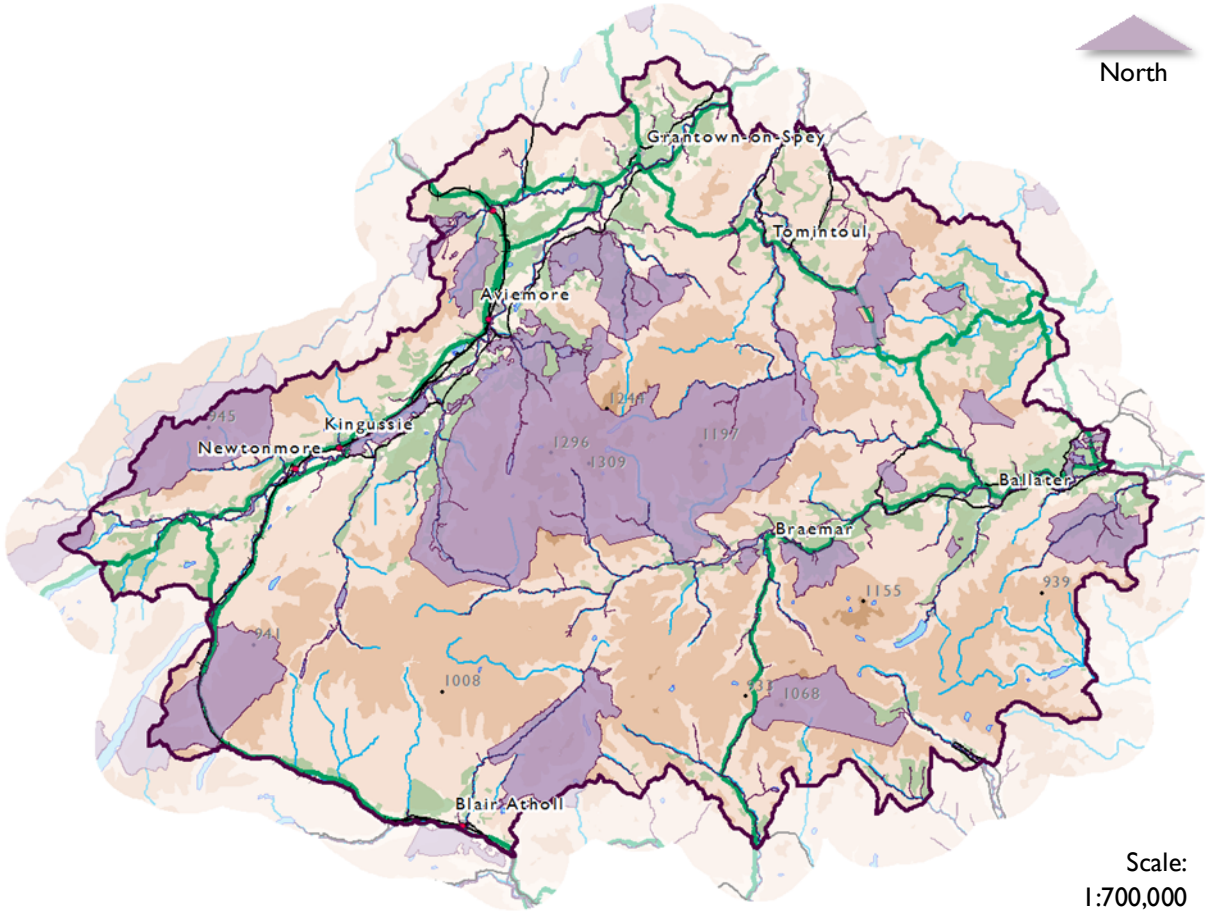

Figure 59 Special Areas of Conservation within the Cairngorms National Park.

There are 15 SPAs within or overlapping the National Park (**Figure 60**), covering an area of around 2,013 km^2 (or 45% of the National Park's area). Of these, 9 have at least one qualifying feature that is in unfavourable condition. 3 SPAs, namely Craigmore Wood, Creag Meagaidh and Muir of Dinnet have no qualifying features in favourable condition.

With around 1,733 km^2 of its 1,875 km^2 within the National Park, The Cairngorms Massif SPA contributes 68% of the land protected as an SPA within the National Park. It is the largest in Scotland. There are currently no public records on the condition of the breeding population of Golden eagle (*Aquila chrysaetos*) in the SPA, which is its only qualifying feature.

There is also one area currently under consideration for designation as a SPA. If Ladder Hills is designated then it will create an additional 42 km^2 of land within the National Park protected under the Birds Directive.

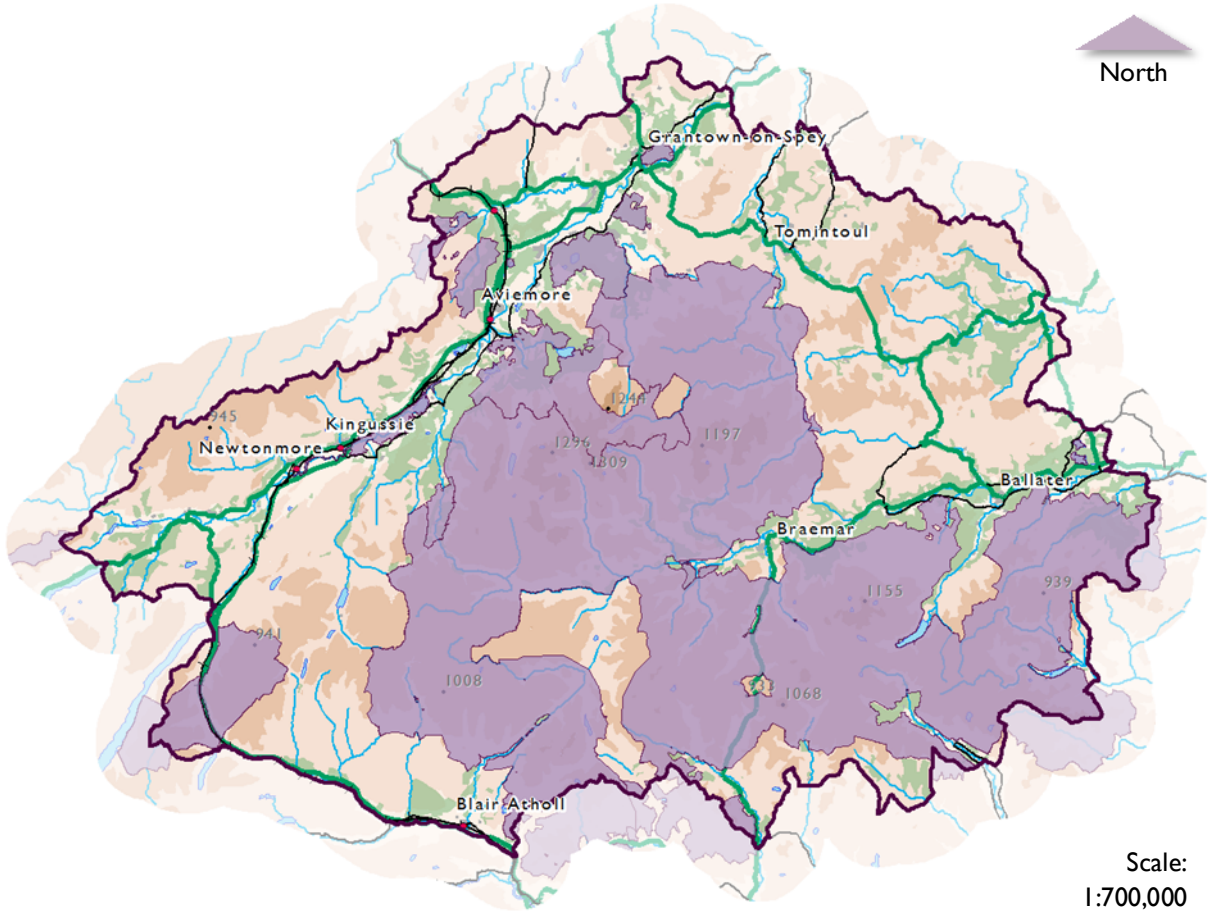

Figure 60 Special Protection Areas within the Cairngorms National Park.

Ramsar Convention

The National Park is also home to three wetlands of international importance that have been designated under the Ramsar Convention (**Table 15** and **Figure 61**). All are wholly located within the Cairngorms National Park. The designation recognises the fundamental ecological functions of these areas as well as their economic, cultural, scientific, and recreational value.

Table 15 Ramsar Convention Sites within the Cairngorms National Park.

Site Code	Name	Area (ha)
UK13002	Cairngorm Lochs	172.99
UK13049	Muir of Dinnet	157.60
UK13053	River Spey - Insh Marshes	1158.77

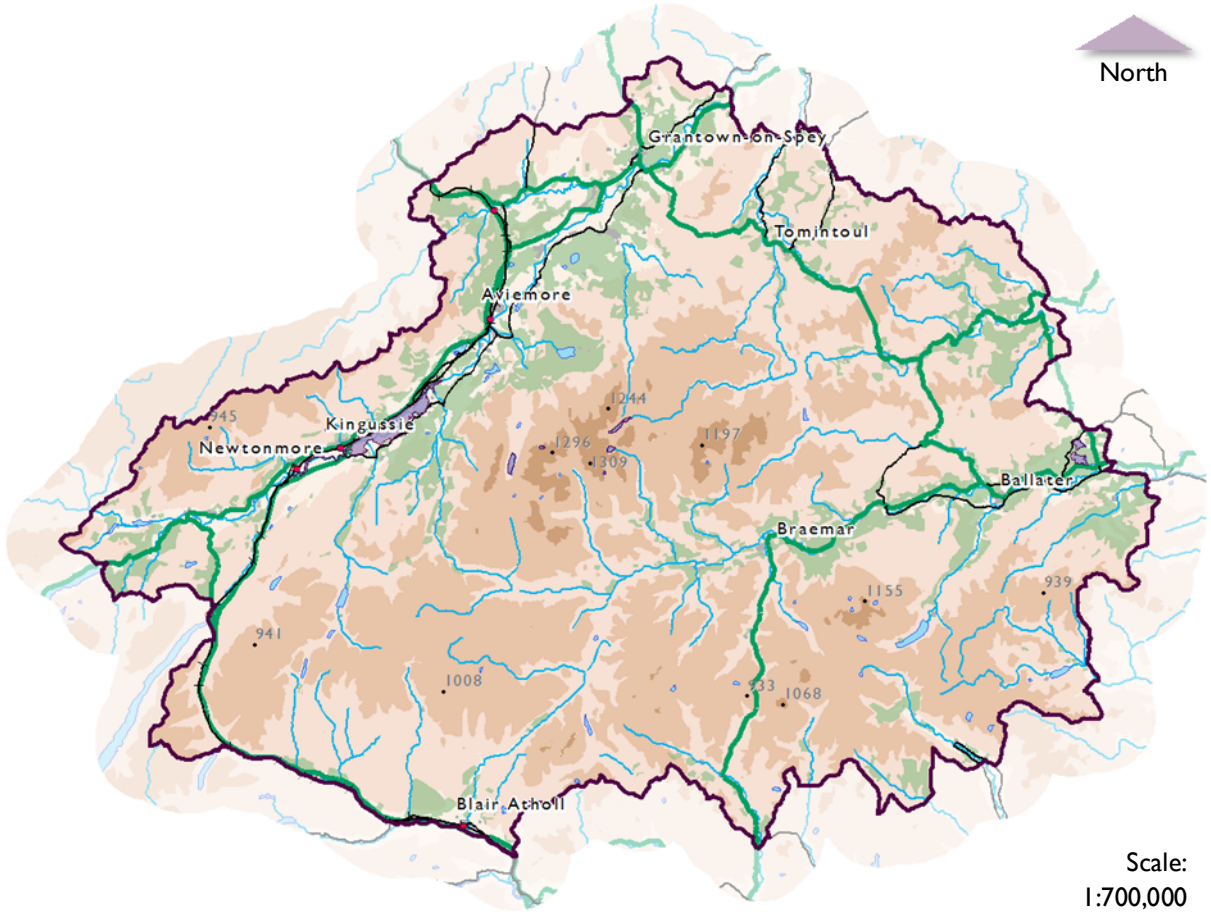

Figure 61 Ramsar Sites within the Cairngorms National Park.

Non-Statutory Designations

The National Park contains a number of non-statutory designations (**Figure 62**). The RSPB runs 2 Nature Reserves within the National Park namely, Loch Garten and Insh Marshes. Both encompass areas of statutory designation, with the former covering most of Abernethy NNR and SPA and the latter, Inch Marshes NNR and SPA.

Loch Garten is best known for its osprey, but is also an important site for capercaillie, crested tit, goldeneye and Scottish crossbill. Insh Marshes is home to an important assemblage of wetland birds, including curlew, lapwing, redshank, snipe and whooper swan.

The National Park contains one Biogenetic Reserve at Muir of Dinnet. This is part of a European network of 'living laboratories' representative of various types of natural environment found in Europe. The purpose of Biogenetic Reserves has now been overtaken by that of Scotland's national nature reserve network and so the designation is rarely referred to.

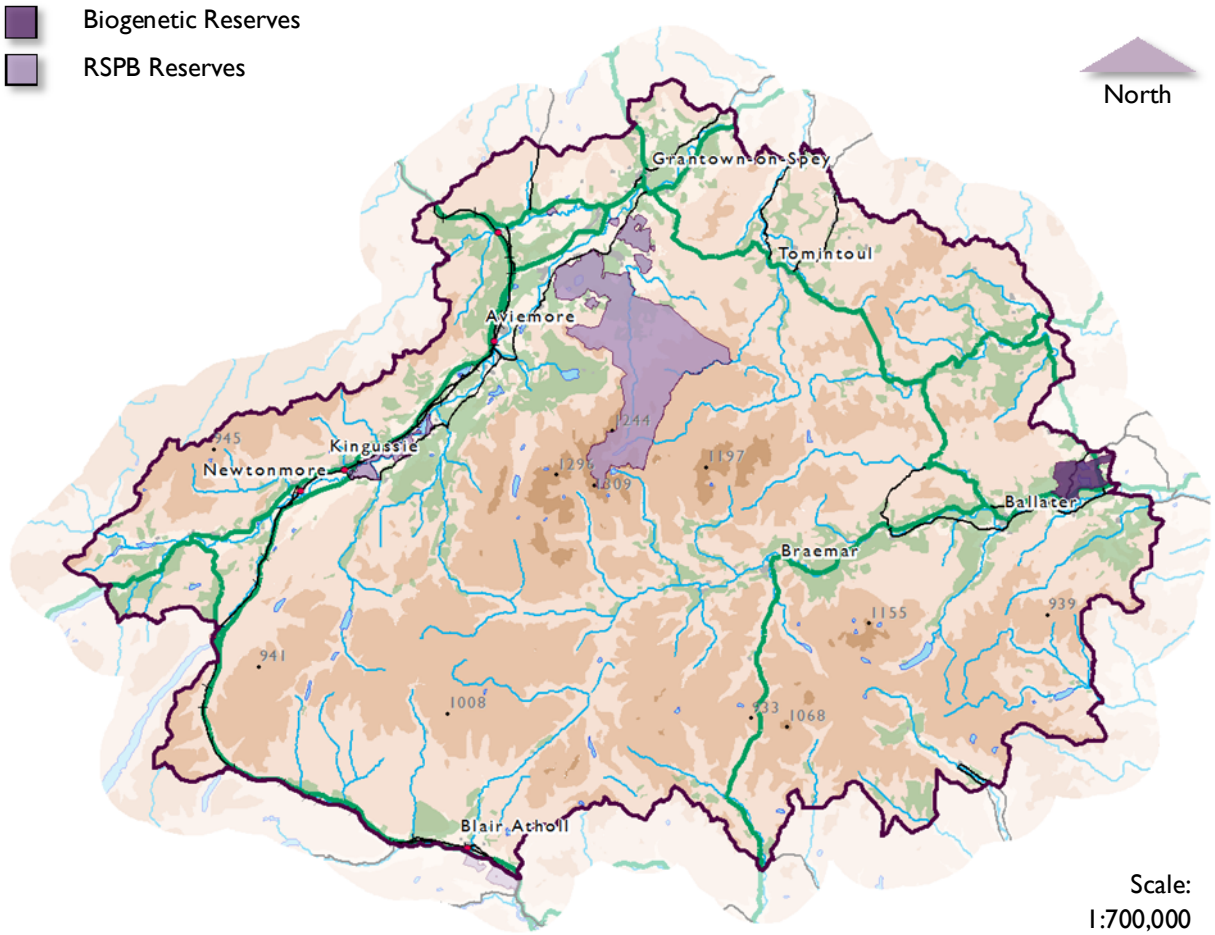

Figure 62 RSBP and Biogenetic Reserves in the Cairngorms National Park.

Important Species and Habitats

There are around 1,200 species considered to be important for nature conservation within the National Park. Of these, 26 have been identified for priority action within the Cairngorms Nature Action Plan (CNAP) 2013-2018.

The CNAP also identifies the National Park's threatened habitats, which are broader than those afforded special protection as designated sites. For the purpose of discussing them and the priority species that depend on them, they are described here under four headings, namely:

- Woodlands (p. 133),
- Freshwater, Wetlands & Wet Grassland (p.142),
- Uplands (p. 148), and
- Lowlands (p. 151).

Woodlands

The Cairngorms National Park contains the most extensive tracts of Caledonian forest in Britain, comprising pine, juniper and broadleaved species (**Figure 63**). It also

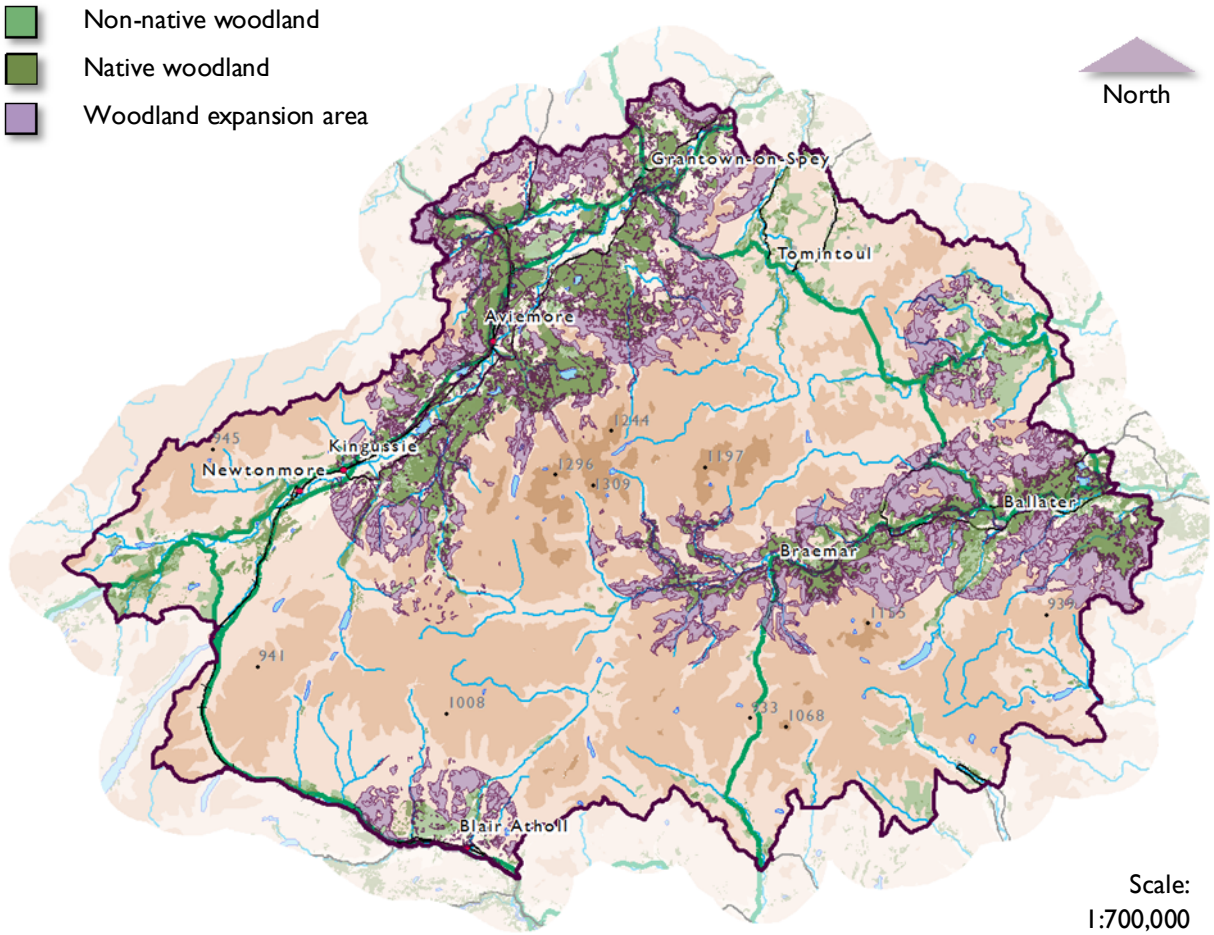

Figure 63 Areas of woodland and woodland expansion in the Cairngorms National Park.

contains the best examples in Scotland of bog woodland, montane willow scrub and stands of aspen. Native tree species comprise around 79% of these woodlands, representing a quarter of the entire Scottish native woodland resource.

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.

Key woodland types found within the National Park are:

- Caledonian Pinewoods,
- Conifer Plantations,
- Birch & Aspen Woodland,
- Wet & Riparian woodland, and
- Upland Oak.

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

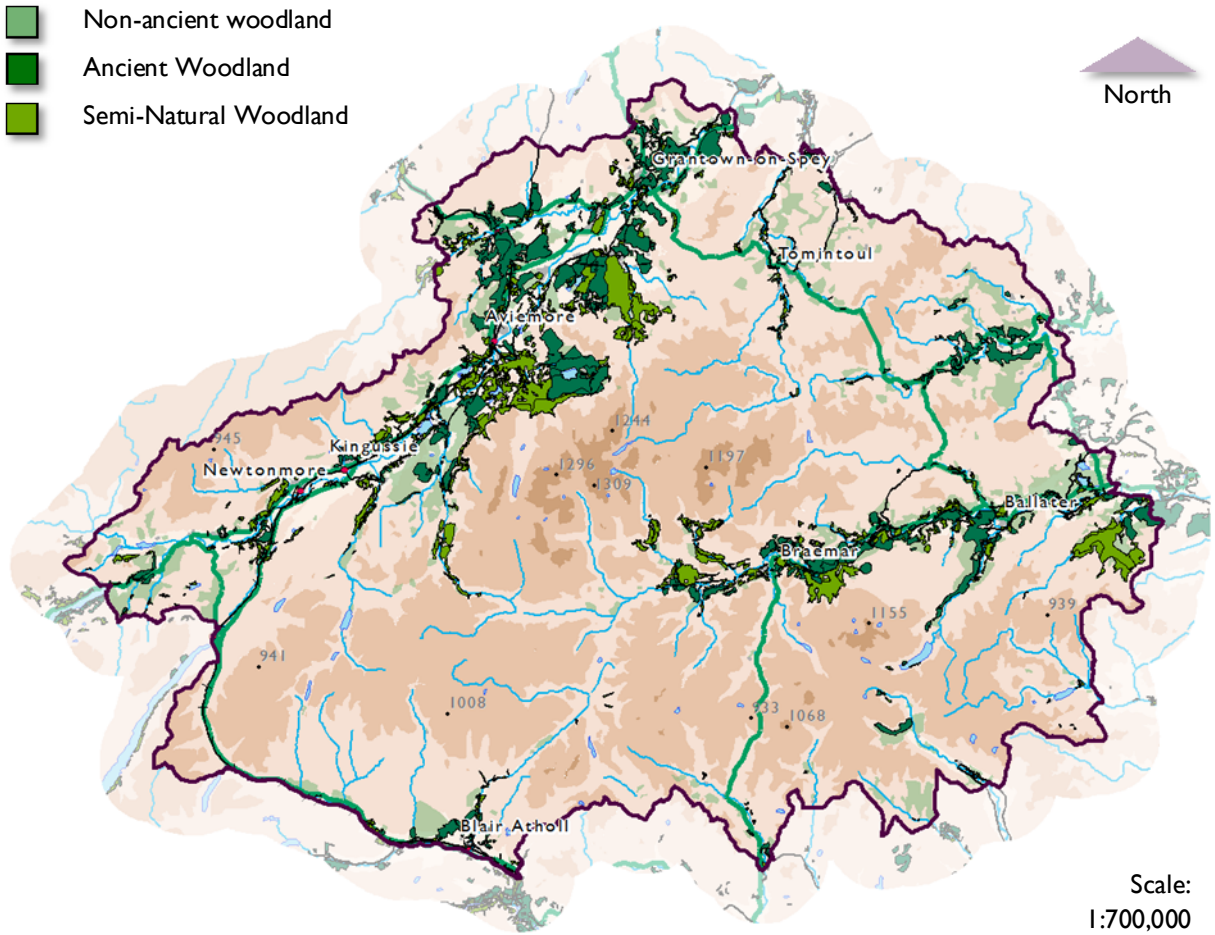

Figure 64 Areas of ancient woodland in the Cairngorms National Park.

larger area of northern Europe. Aspen can tolerate a wide range of soil types and climatic conditions and it is likely that its present distribution is due to the effects of deforestation.

Around 340 km^2 of the National Park's woodlands are also identified as being ancient according to SNH's Ancient Woodland Inventory (**Figure 64**). Around 160 km^2 of this has also been identified as being semi-natural. Ancient woodland is defined as land that is currently wooded and has been continually wooded, at least since 1750. This type of woodland has important biodiversity and cultural values by virtue of its antiquity.

Over the last 25 years there has been an increased awareness of the multiple benefits that native woodland can deliver and an upsurge in action to restore and expand native woods. Between 2013 and 2015 890ha of new native woodland has been created in the National Park, while work is underway to identify areas of with future potential (**Figure 63** and **Figure 65**). Of

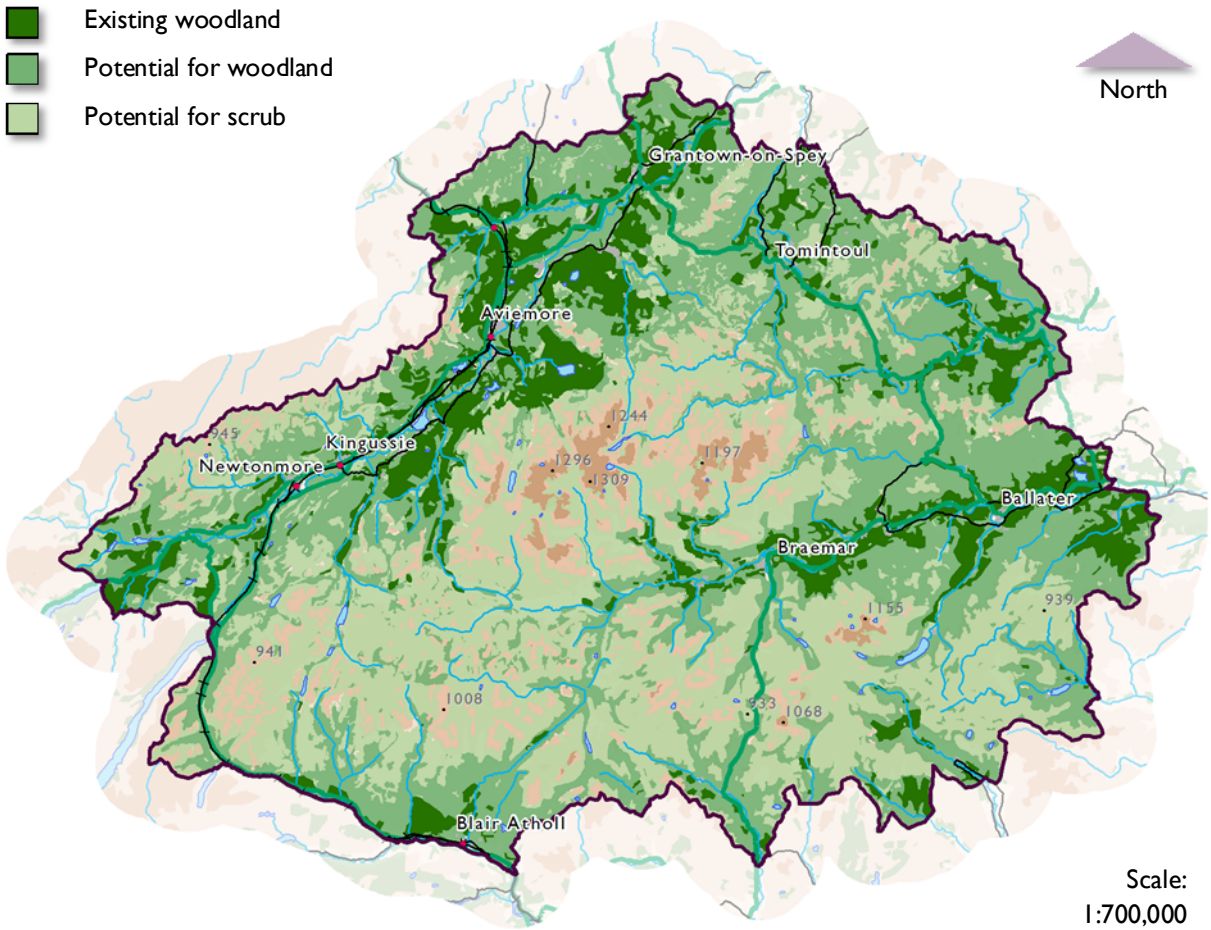

Figure 65 Existing woodland and land with potential for woodland and scrub in the Cairngorms National Park (Based on Soil Survey of Scotland Staff, 1981).

the newly created woodland, around 704ha is adjacent to the existing resource.

However, Lack of regeneration, poor structural diversity and grazing pressure has resulted in some woodlands suffering from reduced biodiversity value.

Improved connectivity through woodland expansion combined with good management is crucial to enhance habitat that supports species of high conservation value. The CNPA Woodlands Expansion programme (Cairngorms National Park Authority, 2008) actively promotes this and in combination with the Cairngorms Deer Management Framework (Cairngorms National Park Authority, 2011) aims to ensure greater connectivity and management.

Table 16 provides the main issues affecting woodlands within the National Park together with actions required to address them.

Table 16 Issues affecting woodlands in the Cairngorms National Park.

Habitat	Issue	Action Required
Caledonian Pinewood	At threat from habitat loss, lack of regeneration, limited deadwood and poor structural diversity. Past management has reduced species diversity in many of the remaining woods.	➢ Improving the existing resource and encouraging expansion into areas for habitat connectivity and resilience which will mitigate against further loss and also enhance the habitat to halt the decline and encourage growth.
Conifer Plantations	Mixture of Scots Pine, Sitka and Norwegian Spruce, Lodgepole pine and Douglas fir and Larch. Many are of single species and single age and are of limited value for biodiversity. Conifer plantations make up 50% of the woodland resource and a third of these are on Ancient Woodland Sites.	➢ Promote the restoration of Plantations on Ancient Woodland Sites. ➢ Encourage and provide advice and guidance on continuous forest cover via workshops, demonstration projects and events. ➢ Promote stand restructuring and thinning to create a mosaic of different densities and structures.
Birch & Aspen Woodland	Aspen dominated woodland is unique to the Cairngorms National Park, the stands are small and total less than 350ha concentrated in Strathspey and Deeside.	➢ Encourage and advise land managers to manage birch woodlands for aspen enhancement. ➢ Review grazing management in high nature value areas to encourage vigorous birch and aspen regeneration and a diverse field layer.
Wet & riparian woodland	Fragments of ancient floodplain woodlands are rare in the UK, the Cairngorms National Park has some of the best, especially in Strathspey and Deeside.	➢ Identify sites for creating and expanding bog and wet woodland. ➢ Block drains, re-wet areas and remove non-native conifers.
Upland oak	Lack of regeneration, poor structural diversity and grazing pressure has reduced their biodiversity value. Most of the oak woodlands are found in Deeside	➢ Encourage better land management and reduce grazing pressures.

Key Woodland Species

The CNAP species which have been selected for targeted action and are dependent on woodland habitat are listed in **Table 17**.

Working in partnership, the CNPA is involved in projects aimed directly at improving the status of woodland habitats and associated species, some of which were listed in **Table 17**, within the Cairngorms National Park, these include:

Capercaillie Framework

Capercaillie populations in Scotland have declined significantly from an estimated 20,000 birds in 1970 to around 1,285 at the most recent national winter survey in 2009/10 (Ewing *et al*. 2012).

The Cairngorms National Park holds a significant proportion of the national population – at least 75% of the national number of lekking males, with the majority in Strathspey (Eaton *et al*. 2007; Poole, 2010) (**Figure 66**).

Table 17 Woodland species selected for targeted action in CNAP (Cairngorms National Park Authority, 2013).

Species	Status in the CNP
Capercaillie *Tetrao urogallus*	Capercaillie are found almost exclusively in Caledonian Pine Forest. Including Anagach, Rothiemurchas and Abernethy woods. Capercaillie chicks feed on moth caterpillars feeding on blueberry plants, adults and older chicks feed on leaves and berries, during winter they feed on pine needles.
Scottish Wildcat *Felix sylvestris*	The Scottish wildcat is a rare, elusive and largely nocturnal species confined to the most thinly populated parts of the UK. Main threats to the survival of the species in Scotland were: hybridisation with feral or domestic cats, being inadvertently killed during feral cat control operation and disease.
One-flowered Wintergreen *Moneses uniflora*	This plant used to be called St Olaf's Candlestick. It has a single nodding white flower at the top of a stem, and a rosette of leaves at the base. Key threats are the loss of the old Caledonian Forest and the harvesting of commercial forests.
Twinflower *Linnea borealis*	Twinflower is an Artic-alpine flower which is a relic of the ice age it has a stronghold in Strathspey. It is dependent on the open canopy of Caledonian Pinewoods.
Green Shield-moss *Buxbaumia viridis*	The Green Shield-moss is a rare and endangered species which grows on decaying wood. The loss of woodland cover over the centuries and, more recently, the intense management of woodland areas has led to a significant loss of habitat for this bryophyte species.
Pine Hoverfly *Blera fallax*	The Pine Hoverfly is found in only two locations in the UK in Strathspey. It needs rotten tree stumps that are more than 40 cm in diameter to breed. The lack of these large stumps in pinewoods – especially stumps with the necessary rot conditions – has been the cause of the decline.

Although capercaillie numbers have held up in Strathspey in recent years, the population is now extremely vulnerable elsewhere. Capercaillie persist in other areas (Deeside, Donside, Easter Ross, Moray and Perthshire) but these populations are smaller and more fragmented.

The Strathspey capercaillie population is crucial to the long-term survival of the species in the UK. The Capercaillie Framework (Cairngorms National Park Authority, 2015) aims to improve conservation for Capercaillie by the introduction of landscape scale measures to target the main threats of disturbance, predation, collision with deer fences, unsympathetic woodland management, habitat loss and fragmentation.

Increased disturbance resulting from development and recreation can have a significant effect on Capercaillie usage of habitat for example Capercaillie have been shown to avoid habitat close to tracks,

Species	Status in the CNP
Pearl-bordered fritillary *Boloria euphrosyne*	Changes in woodland management over recent years have led to the decline of the species. Woodland practices such as coppicing and thinning are in decline, and many areas have been planted with conifers. Woodland rides and clearings have become increasingly shady and overgrown. Bracken habitats are no longer managed through grazing.
Dark bordered beauty *Epione vespertaria*	A small yellow- orange moth with brown bordered wings. The caterpillar feeds on young suckering aspen, which requires particular levels of grazing. Only found in a handful of locations in the CNP.
Scarlet splash fungus *Cytidia salicina*	This fungus appears as a bright red splash on the underside of dead willow branches, especially those lying close to the ground. It has only been recorded 14 times in Scotland most of these records are in the CNP.
Kentish Glory *Endronis versicolora*	Kentish Glory, a large day flying moth is found in open birch woodlands. Both sexes are brown with white markings on the forewings.
Wood Ants	There are four species considered for action: *Formica aquilonia*, *F. lugubis, F. exsecta* and *Formicoxensus nitidulus.* They perform a number of important roles in the forest ecosystem, earning them the status of "keystone" species; these are species which play critical roles in the structure of their ecological community. Changes in woodland management, deforestation, inappropriate afforestation, urban expansion, human disturbance and agriculture are all linked to the loss of suitable habitat for woodland ant species.

which may reduce overall carrying capacity in forests with a high density of tracks (Rosner *et al*. 2013). A study at Abernethy forest estimated that 21-41% of suitable woodland habitat could be lost due to avoidance of tracks (Summers *et* al. 2007). To ensure these factors are considered the framework integrates habitat management, recreation and development plans as outlined in the Cairngorms Nature Strategy (2012-2018), Active Cairngorms (2015) and the Local Development Plan (2015) and suggests mitigation packages be developed to ensure no impact on Capercaillie.

Red Squirrel of the Highlands

The Cairngorms National Park is one of the last strongholds for Red Squirrel in the UK. Grey Squirrels are larger than the native reds and were introduced to the UK from America and Canada in the early 1900's. They pose a serious threat to the survival of the red squirrel population through transmission of the deadly squirrel pox

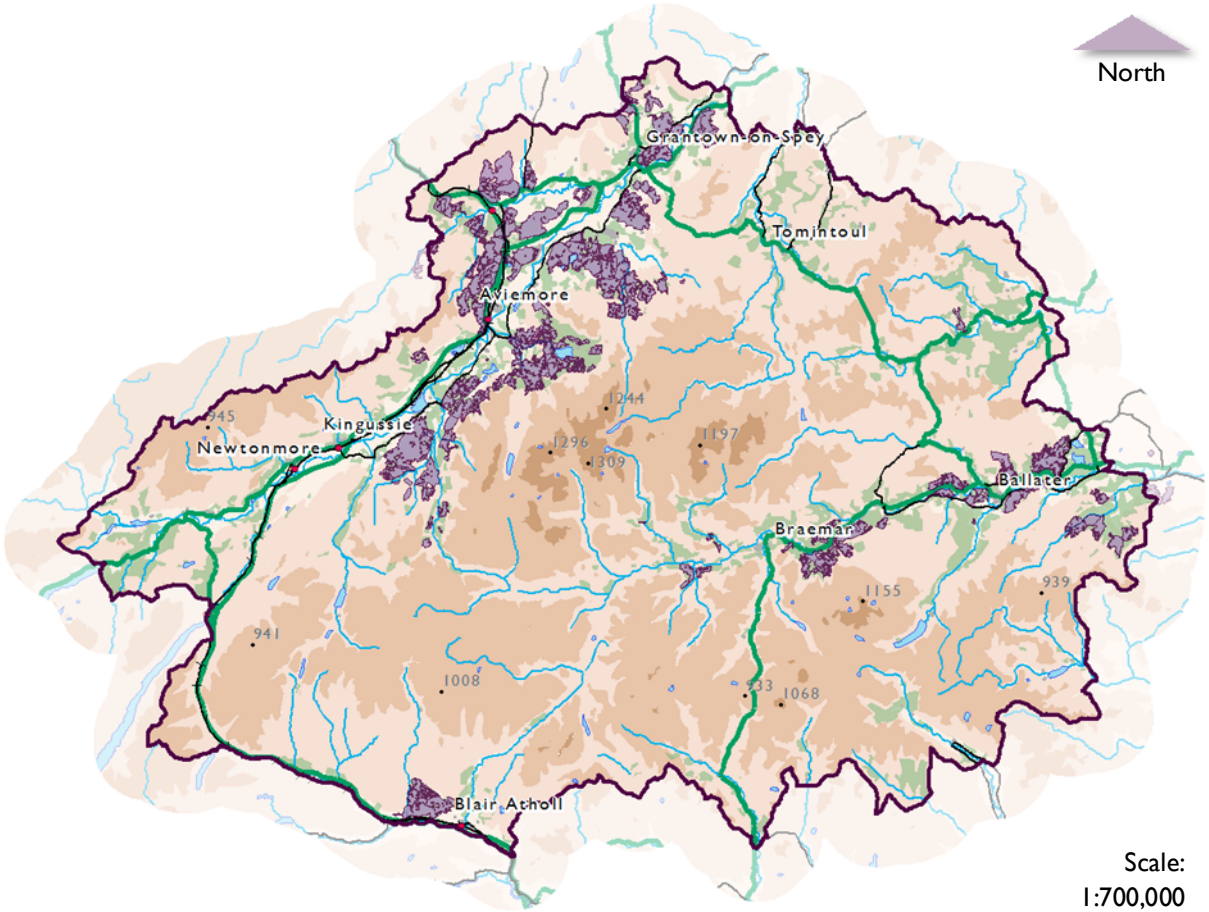

Figure 66 Areas where Capercaillie have been sighted in the Cairngorms National Park since 2007.

virus that the grey squirrel carries. Grey squirrels are occasionally seen moving up the River Dee from Aboyne or moving up the River Garry from Pitlochry. The Red Squirrels of the Highlands Project is working to monitor and conserve Red Squirrels in the National Park.

Wildcat - Tiger of the Highlands

The project raised awareness of the wildcat's plight using a campaign branded '*Highland Tiger*'. It worked with a range of partners and interest groups to safeguard surviving Scottish wildcat populations and create favourable conditions for the species to thrive in the future. Part of the project was aimed at assisting gamekeepers to confidently identify wildcats to ensure they are not inadvertently culled through otherwise legal predator control activities. The project also worked with vets and cat welfare charities to encourage responsible cat ownership and the expansion of feral cat trapping and neutering. SNH have produced the Scottish Wildcat Conservation Action Plan 2013-2018, which details three wildcat conservation areas within the National Park.

Deer

There are four species of deer found within the Cairngorms National Park, all contributing to different extents to the biodiversity and economy of the area. The UK's largest wild land mammal, Red Deer are common in most areas of the National Park and have long been central to the cultural and natural heritage of the Highlands. Their economic importance and significant positive and negative impacts on the land means that their careful management is critical, and at times causes controversy.

Roe Deer are also numerous in the National Park and are a common sight on lower ground in and around woodlands. Although less high profile, they are popular with wildlife spotters and are valued for venison, but can cause damage to young trees and crops.

Non-native Sika Deer are present in much smaller numbers and are of concern because of their potential to interbreed with Red Deer.

The unique herd of semi-domestic Reindeer in the National Park are important mainly as a tourist attraction. The Cairngorms Deer Advisory Group is a forum to promote and advise on best practice deer management within the Cairngorms and is formed from local deer group members. In partnership with the CNPA they have produced The Cairngorms Deer Management Framework (Cairngorms National Park Authority, 2011).

Key Woodland Sites in the Cairngorms National Park

Key woodlands within the Cairngorms National Park are Abernethy, Glenmore, Rothiemurchas and Inshriach, all of which are located in Strathspey. Together these reserves form the largest continuous tract of native woodland in the UK. In Deeside the two NNRs

Glen Tanar and Dinnet Oakwood are examples of Caledonian woodland and old Sessile Oak (*Quercus petraea*) woodland, a habitat which is very fragmented in north-east Scotland. They are managed by various organisations, which include the Forestry Commission, SNH, RSPB and the Estates. They are home to Osprey, Capercaillie, Red Squirrel and Crossbill. The forests have a rich understorey and plant species include Twinflower and One flowered wintergreen (*Moneses uniflora*).

Freshwater, Wetlands & Wet Grassland

A mosaic of wetland habitats with fens, bogs, woods, wet grassland and open water provides a home to a rich array of wildlife (**Figure 67**). The National Park is one of the most important sites for breeding waders due to the combination of wetlands, wet grassland and low-intensity mixed farming. Even so, birds such as Lapwing and Redshank have seen dramatic declines in numbers in recent years. Wet grasslands are the products of agricultural management, they are not extensive within

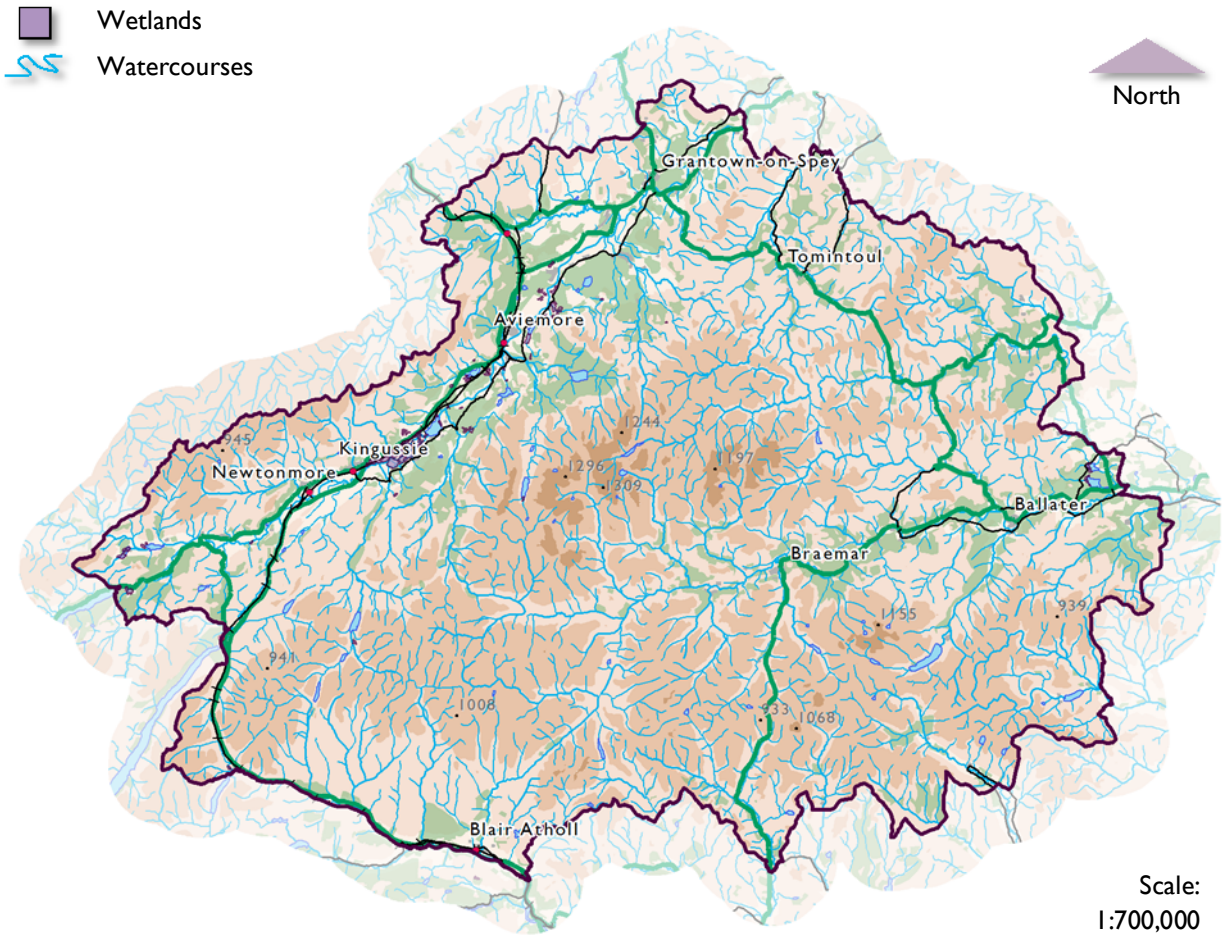

Figure 67 Wetlands within the Cairngorms National Park (Soil Survey of Scotland Staff, 1981).

the National Park and are often in low-lying areas of fields where crop yield and productivity is low. Wetlands would have once been an extensive habitat within the Cairngorms National Park but have suffered dramatic declines here as in the rest of the UK.

The Cairngorms are the source of the internationally designated rivers Spey, Dee, Tay and South Esk, which support Salmon, Freshwater Pearl Mussel, Otter and Lamprey. The lochs support fish including Arctic Charr.

The WFD Classification places a requirement on SEPA to monitor the ecological status of waterbodies and its ability to continue to function as such. Within the National Park around 50% of waterbodies are classified as being at good or better ecological status (**Figure 68**), however, recently the ecological status of many waterbodies within the National Park has been on the wane (**Figure 69**). See **Topic 3: Water** (p. 74) for further information on the quality of waterbodies in the National Park.

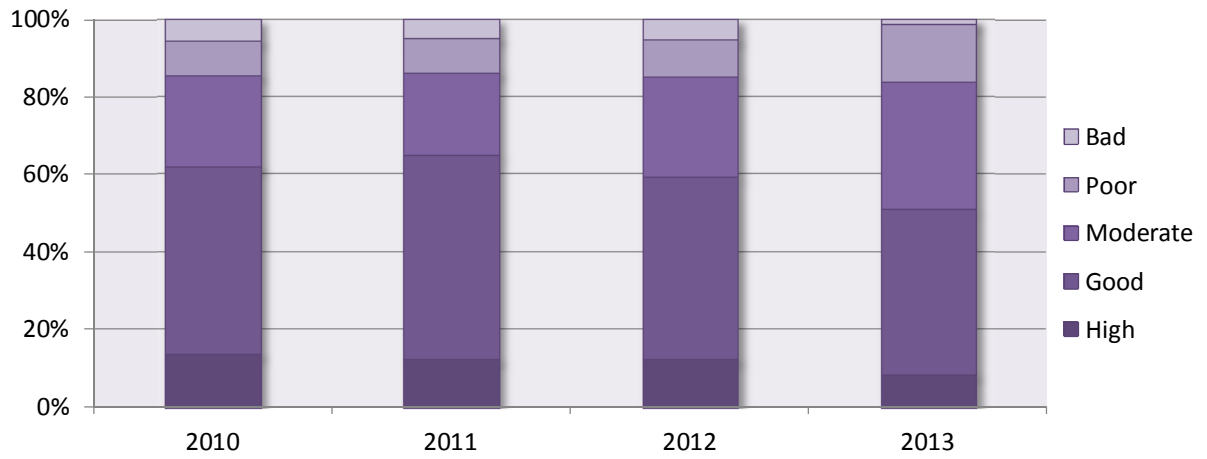

Figure 2 Ecological status of waterbodies within and overlapping the Cairngorms National Park.

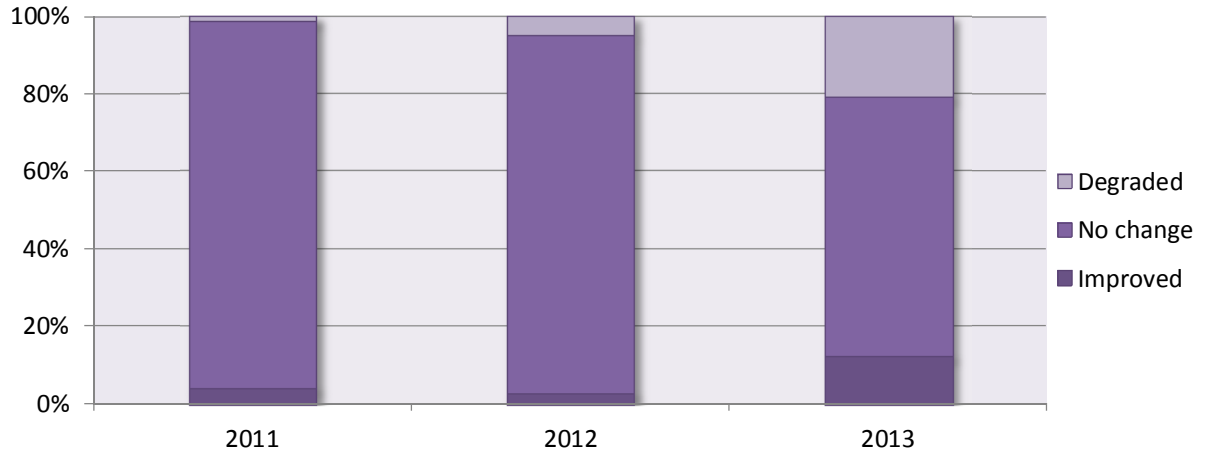

Figure 69 Change from previous year in the ecological status of waterbodies within or overlapping the Cairngorms National Park

Source: http://www.sepa.org.uk/data-visualisation/rbmp-interim-planning-tool/

Table 18 provides the main issues affecting wetlands within the National Park together with actions required to address them.

Table 18 Issues affecting Freshwater, Wetlands and Wet Grassland in the Cairngorms National Park.

Habitat	Issue	Action Required
Wet Grassland	Over-grazing and poaching by livestock, cutting for hay at critical wader breeding times and drainage to produce productive agricultural land.	➢ Support land managers and farmers to conserve populations of breeding waders. Improve and restore wet grassland.
Wetlands	Wetlands have historically been drained for agriculture, suffered water shortages as a result of over abstraction and impoundment and been subject to pollution pressure from diffuse and point sources. The remaining wetlands are now often small and fragmented.	➢ Create new wetland habitats.
Freshwater	Rivers and lochs and the species they support have been affected by large scale impoundments which have a hydrological impact but also affect sediment dynamics, barriers to fish passage, diffuse and point source pollution and invasive species such as *Ranunculus*.	➢ Continue to support river management to improve and maintain good ecological status of waterbodies, create new freshwater targets.

Key species for focused action

The CNAP species which have been selected for targeted action and are dependent on Freshwater, Wetlands & Wet Grassland habitat are listed in **Table 19**.

Working in partnership, the CNPA is involved in projects aimed directly at improving the status of wetland habitats and their associated species within the Cairngorms National Park, these include:

River Catchment Initiatives

Several of the rivers within the National Park have associated initiatives who co-ordinate partnerships to deliver integrated catchment management they are (**Figure 70**):

- Spey Catchment Initiative,
- Dee Catchment Partnership,
- River South Esk Catchment Partnership, and
- River Don Catchment Partnership.

The main objectives to meet WFD good status within these catchments are to

Table 19 Freshwater, Wetlands & Wet Grassland species selected for targeted action in CNAP (Cairngorms National Park Authority, 2013).

Species	Status in the CNP
Lapwing *Vanellus vanellus*	Breeding lapwings are in decline in Strathspey, the Waders and Wetlands Project aims to research reasons for the decline and work with landowners to encourage sympathetic land management.
Northern damselfly *Coenagrion hastulatum*	This is a very rare and localised species with almost all known lochan locations within the CNP. It is very similar to Common blue damselfly but has a distinctive 'ace of spades' marking.
Northern silver-stiletto fly *Spiriverpa lunulata*	Stiletto larvae are long, thin, white and worm-like. They are ferocious predators with a glossy hard skin that lets them slither through dry sand as they chase their insect prey. Habitat needs – exposed sand and shingle on river banks
Freshwater pearl mussel *Margaritifera margaritifera*	The freshwater pearl mussel *Margaritifera margaritifera* grows to 140 mm in length, and burrows into sandy substrates, often between boulders and pebbles, in fast-flowing rivers and streams. It is sensitive to heavy siltation and requires high water quality.
Northern February red stonefly *Brachyptera putata*	The Northern February red is a freshwater species endemic to Britain, found mainly in Scottish upland streams. Due to its rarity and decline in numbers this insect has been made a Priority Species on the UK Biodiversity Action Plan (BAP).

address barriers to fish, tackle diffuse pollution and improve river morphology.

Strathspey Wetland and Waders Initiative

The Strathspey Wetlands and Waders Initiative (SWWI) was set up to work with farmers and other landowners to safeguard wetland habitats and the future of the nationally important wader population in Badenoch and Strathspey - the largest of its kind in mainland Britain.

Pearls in Peril

'Pearls in Peril' (PIP) is a UK wide LIFE funded nature project with 22 partners working together to restore river habitats benefiting freshwater pearl mussel and salmonids. A total of 48 actions will be delivered across 21 rivers designated as SACs for freshwater pearl mussel. The freshwater pearl mussel (M*argaritifera margaritifera*) is declining dramatically throughout its range. Mussel populations have been affected by multiple issues, including wildlife crime – pearl fishing was

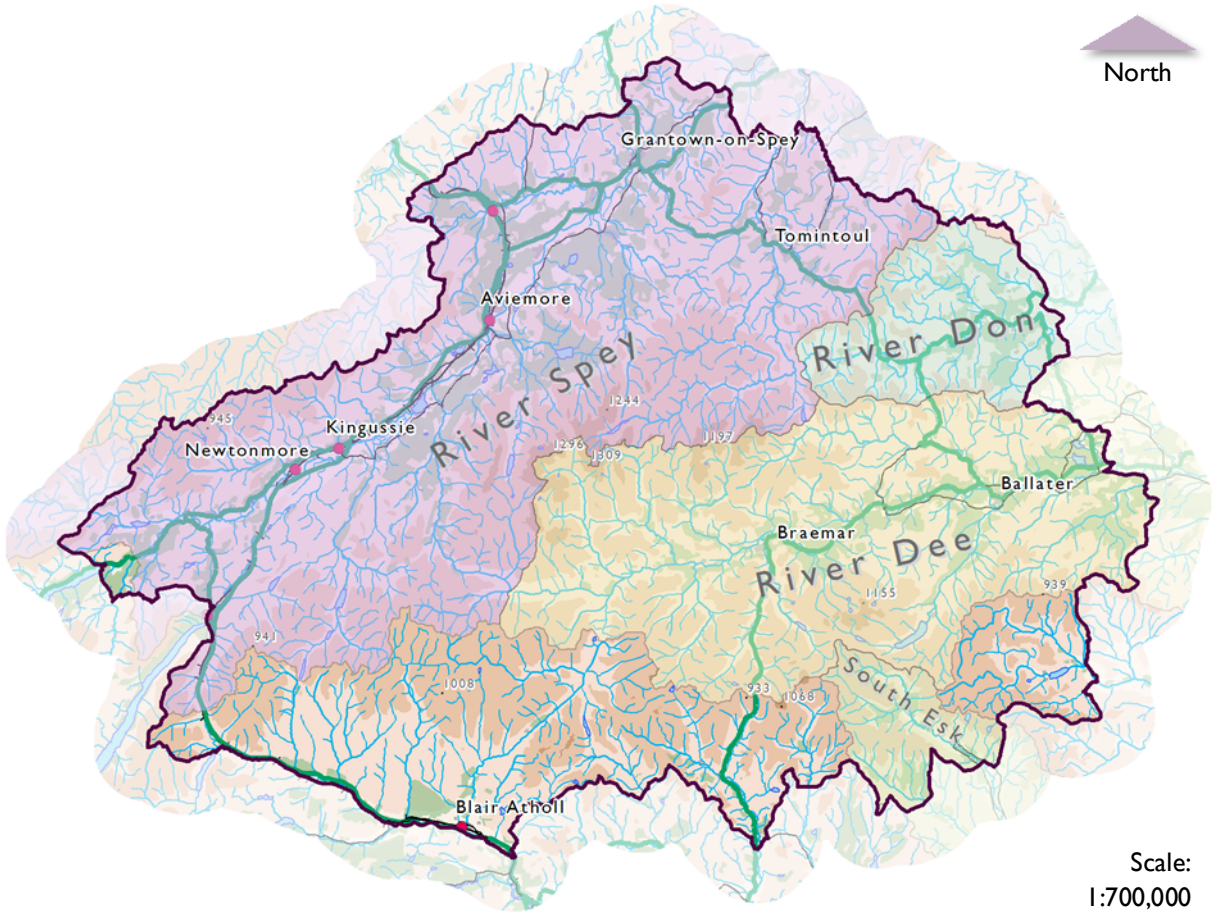

Figure 70 Areas covered by River Catchment Initiatives.

legal until 1992, habitat degradation and declining water quality. This project will help to safeguard the future of the most important pearl mussel populations in the UK by tackling these threats and implementing best practice conservation methods.

A recent survey of FWPM sites in the River Spey highlighted a 50% decline in the population (Sime, 2014), meaning the status of FWPM in the River Spey SAC is currently classified as unfavourable and declining. The reasons for this are still under investigation but are attributed to water quality, especially nutrient levels; an increase in the abundance of water crowfoot (*Ranunculus* spp.) in the middle and lower Spey; low river levels in the middle and lower reaches which have killed established mussel beds; illegal fishing and no recruitment of juveniles in the middle to upper reaches which means the distribution will gradually contract as older mussels die.

Key Wetland Sites

Muir of Dinnet NNR

At the heart of the Reserve are Lochs Davan and Kinord, with their near pure water and associated bogs and fens providing ideal habitat for a wide mix of species; from rare water beetles to mammals like otter, feeding and breeding on the Reserve. During winter, the lochs are an important roost site, attracting migrating geese and other wildfowl. Their international importance is recognised by their designation as a SAC, SPA and Ramsar site.

Muir of Dinnet has two areas of raised bog, one at Parkin's Moss to the south-west of Loch Kinord and the other at Black Moss to the north-east of the Reserve. Together they cover approximately 32ha. Sphagnum mosses, the most important plants of a raised bog, are found at both locations, growing in the wet, acid and nutrient poor conditions. Both bogs support other specialist bog plants including bog cotton, cranberry and the carnivorous plants, butterwort and sundew. The bogs are also home to a wide variety of insects, including at least eight species of dragonfly or damselfly.

Insh Marshes NNR

One of the most designated wetlands sites in Scotland, the Insh Marshes is owned and managed by the RSPB and is renowned for its birdlife throughout the year. The marshes are also home to rare invertebrates such as the newly discovered in Scotland caddisfly *Molanna angustata* and hoverfly *Cheilosia psilophthalma* and a population of Dark Bordered Beauty moth. Mammals include water vole and otter. Wetland vegetation includes String Sedge *Carex chordorrhiza,* which is only found at one other location in Scotland. Its international importance is recognised by its designation as a SAC, SPA and Ramsar site.

Uplands

The Cairngorms are considered to be one of the most spectacular mountain areas in Britain and support a rich arctic montane flora (**Figure 71**). Upland heath is the most extensive habitat due mainly to human activities such as felling, burning and grazing which prevents natural tree regeneration and drainage to allow grouse and red deer hunting. Blanket bog (**Figure 29**) is the second most extensive habitat and is mainly *Calluna-Eriophorum* dominated blanket mire.

Montante scrub is where dwarf trees and shrubs grow above the natural tree line. Dwarf willows, birches and juniper grow in a low twisted, wind-pruned form together with a variety of flowering plants, fungi, lichen and insects. The best example of a continuous treeline in Britain is at Creag Fhialach above Inshriach where a complex of Juniper and birch scrub grows at 550-650m.

Table 20 provides the main issues affecting uplands within the National Park together with actions required to address them.

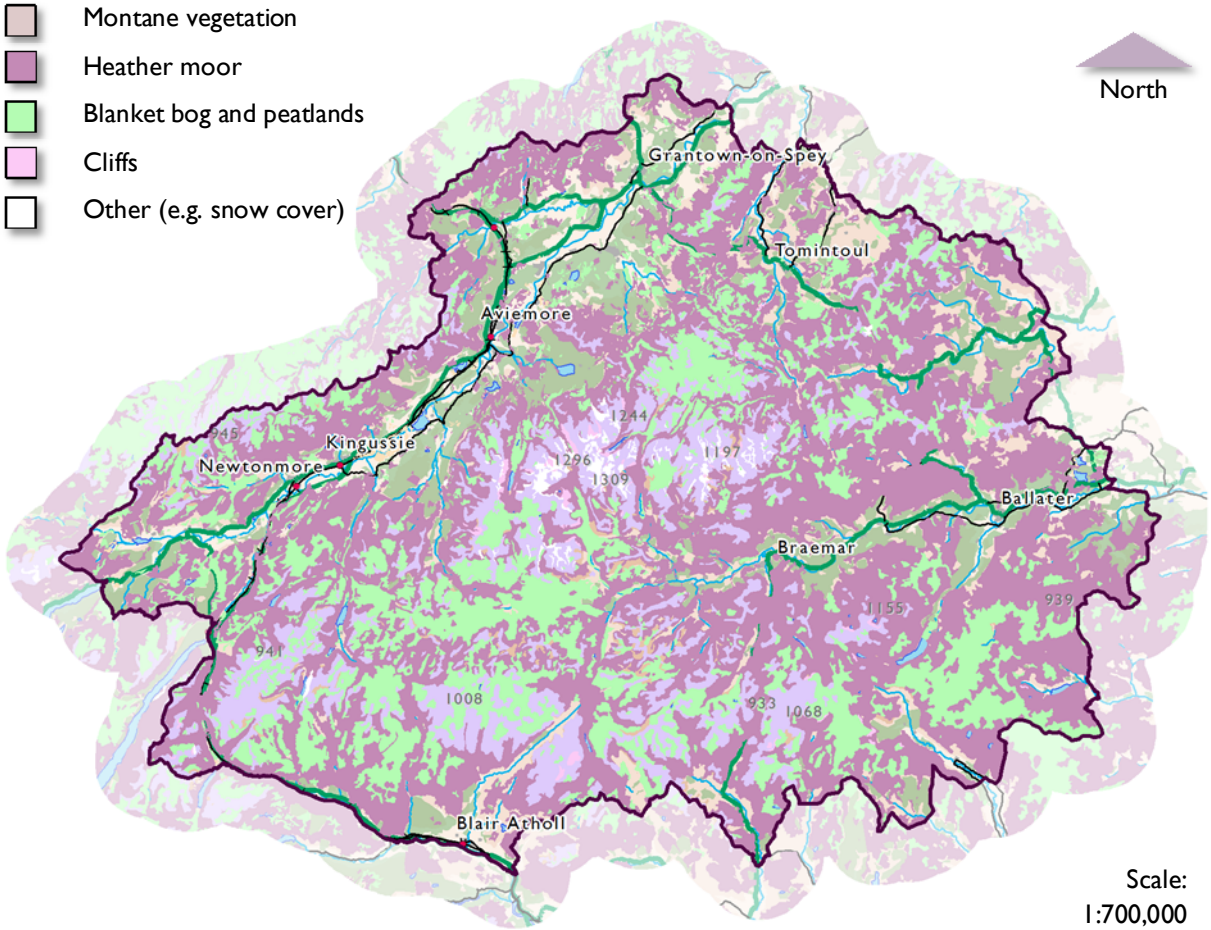

Figure 71 Upland land cover types within the Cairngorms National Park (Soil Survey of Scotland Staff, 1981).

Table 20 Issues affecting uplands in the Cairngorms National Park.

Habitat	Issue	Action Required
Montane & moorland	Climate change, trampling, erosion and disturbance.	➢ Reduced grazing pressure and sympathetic disturbance.
Upland heathland	Drainage.	➢ Restoration and blockage of drainage channels.
Blanket bog	Erosion, which is likely to be a significant cause of carbon emissions.	➢ Sustainable deer management and following the Muirburn Code.
Montane scrub	Overgrazing and burning.	➢ Deer Management to prevent overgrazing.

Key species for focused action

Those Cairngorms Nature Action Plan species dependent upon upland habitat are listed in **Table 21**. Working in partnership, the CNPA is involved in projects aimed directly at improving the status of upland habitats and their associated species within the Cairngorms National Park, these include:

Table 21 Upland species selected for targeted action in CNAP (Cairngorms National Park Authority, 2013).

Species	Status in the CNP
Golden eagle *Aquila chrysaetos*	Breeds in high altitude areas of the CNP. At threat from persecution and disturbance.
Alpine blue sow thistle *Cicerbita alpina*	Alpine blue-sow-thistle is a very rare plant in the UK; it grows on only four rocky ledges sites on the Cairngorm Massif. It was once part of a more widely distributed mountain flora that is today restricted by changing land management practices and increased levels of grazing.
Tufted saxifrage *Saxifraga cespitosa*	A cushion-forming, perennial herb of well-drained base-rich rocks. It is found on mossy ledges, in crevices and on boulder-scree slopes, it is in decline in the Cairngorms.
Powdered sunshine lichen *Vulpicida pinastri*	Records exist for the Eastern and Southern Cairngorms.

Golden Eagle

North East Scotland Raptor Watch began in 2006. It's a partnership project that aims to address the problem of declining populations of rare or endangered species of birds of prey that breed in the uplands of North East Scotland. The Raptortrack project is into its fifth year of satellite tracking specific raptors in the Cairngorms National Park. Three golden eagles are presently being followed.

Montane Scrub Expansion

High altitude birches, willows and junipers would have been much more prevalent in the Cairngorms in the past. Centuries of burning and heavy grazing by livestock and deer have taken their toll on trees and shrubs which grow only slowly amid the poor soils and exposed conditions found high in the Cairngorms. Cairngorms Nature is bringing landowners in the core of the national park together to help identify where all the remnants are and the condition they're in, and explore ways of enhancing and expanding them.

The Cairngorms SAC/SPA is a key site in the effort to expand mountain scrub. Some of the best cliff and scree flora in the Cairngorms is found high up in the cliff buttresses, ridges and deeply indented gullies of the Northern Corries. A number of rare species grow here including alpine saxifrage, Highland saxifrage, hare's-foot sedge, curved wood-rush and green shield-moss above the treeline in Creag Fhiaclach is one of the best areas for montane scrub in Britain.

Lowlands

The lowland farmland and grassland within the National Park (**Figure 72**) has been traditionally managed less intensively than the rest of the UK. There are small fragmented areas of lowland and upland hay meadows which are locally important for biodiversity and include many species of orchid and waxcap fungi.

Those Cairngorms Nature Action Plan species dependent on lowland habitat are listed in **Table 22**.

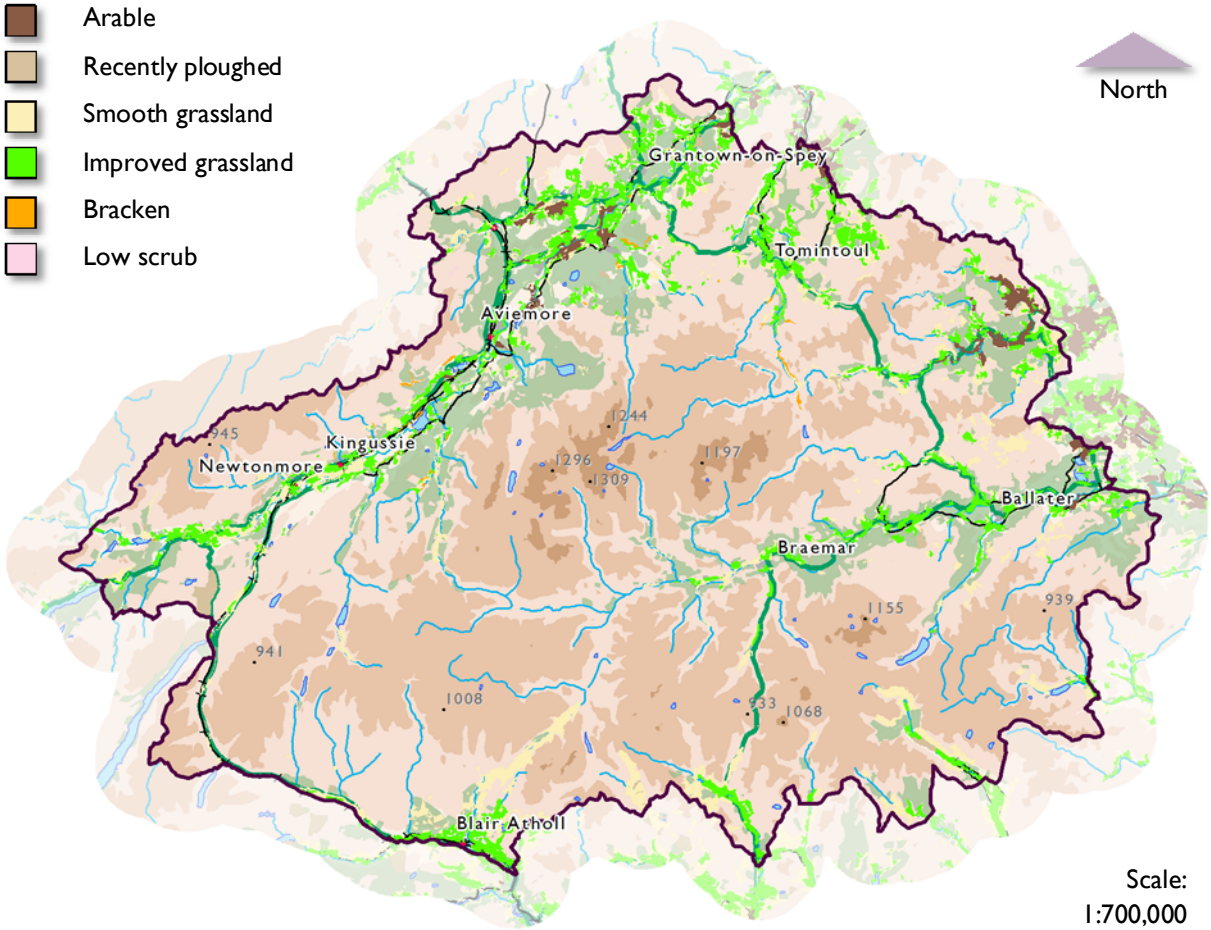

Figure 72 Lowland land cover types within the Cairngorms National Park (Soil Survey of Scotland Staff, 1981).

Working in partnership, the CNPA is involved in projects aimed directly at improving the status of lowland habitats and their associated species within the Cairngorms National Park, these include:

Table 22 Lowland species selected for targeted action in CNAP (Cairngorms National Park Authority, 2013).

Species	Status in the CNP
Small dark yellow underwing *Anarta cordigera*	Depends on bearberry-rich moorland, mainly at altitudes of between 200-650m. Flies rapidly in sunshine, but in dull weather can be found at rest on rocks and posts.
Mining bee *Andrena marginata*	Requires bare ground for nesting and grassland rich in devils-but scabious as a nectar source. Only a handful of known sites in the National Park.
Violet oil beetle *Meloe violaceus*	Occurs in woodland, heathland and grassland habitats where solitary bees are abundant which it requires for part of its lifecycle.
Crimson waxcap *Hygrobyce punicea*	One of the largest of the waxcaps, *Hygrocybe punicea* is an infrequent find on cropped grassland. It occurs in late summer and autumn and is only found in grassland along Strathspey and Deeside.

Farm Advisory

Most of the farms in the National Park are livestock farms. Farmers and crofters keep beef cows, sheep and grow small areas of crops. Most of the crops are for feeding to livestock - grass for hay and silage, turnips for sheep in winter - however some crops such as barley are grown for whisky distilleries. Many of the farmers and crofters in the park are in 'agri-environment' schemes, which means that they take extra care of the environment by careful grazing, growing special crops for birds, and growing wildflower meadows. The CNPA provides advice, support, various projects and special learning events such as the Land Management Training Series which recently included a deer stalking course for women working within the Cairngorms National Park.

Key Messages

The Cairngorms National Park is considered to be one of the richest and biodiverse places in the UK, being home to 25% of the UK's rare animal, insect, lichen, fungi and insect species. Consequently, large areas have are protected by various types of national and international nature designation, including NNRs, SSSIs, SACs and SPAs. A number of these designations are however in unfavourable condition.

Increasingly the National Park's valued species and habitats are under threat from habitat loss, fragmentation, disturbance and unsustainable land management practices. Some important species, such as Capercaillie and Freshwater Pearl Mussel have been under particular pressure and have seen significant drops in their population.

The Cairngorms National Park Authority already has a number of PPS in place to help prevent, mitigate and compensate the loss of biodiversity, including the Cairngorms Nature Action Plan (2013), Active Cairngorms Strategy (2015), The Cairngorms National Park Forest and Woodland Framework (2008) and Deer Framework for the Cairngorms National Park (2011). The implementation NPPP may therefore result a number of cumulative, synergistic and in-combination with these. Together they should work towards a cohesive approach addressing issues, linking the needs of people with the natural environment.

Inter-relationships with other topics

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