

NFI provisional estimates for woodland in the Cairngorms National Park

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Summary

This report provides a detailed picture of the stocked area in woodland, the standing volume of timber and the associated live biomass and carbon stocks for woodland in the Cairngorms National Park. These estimates are a subset of those published as part of the 2012 growing stock information presented in the National Forest Inventory (NFI) *50-year forecast of softwood timber availability (2014)* and *50-year forecast of hardwood timber availability (2014)*. NFI reports are published at www.forestry.gov.uk/inventory.

The estimates provided in this report are provisional in nature.



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Approach

The approach taken in the derivation of these results and to be used in their interpretation is described in the full suite of forecast reports which can be found at www.forestry.gov.uk/forecast. Refer to the *Standing timber volume for coniferous trees in Britain (2012)* and the *NFI preliminary estimates of quantities of broadleaved species in British woodlands with special focus on ash (2012)* reports for a description of the underlying methodologies and interpretation, and also for the Scotland and Great Britain (GB) context.

The estimates reported here are based upon field samples assessed between October 2009 and August 2013, the results of which have been subjected to rigorous data quality assurance procedures. These field samples constitute approximately two-thirds of the sites to be sampled within the first cycle of NFI field sampling. As a consequence, the estimates in this report are classed as provisional.

Results

The results presented in this report are estimates of standing volumes, stocked areas, biomass and carbon stocks at 31 March 2012 in the Cairngorms National Park. The data sources used for the compilation of these estimates are the same as described in the NFI reports *Standing timber volume for coniferous trees in Britain (2012)*, the *50-year forecast of softwood availability (2014)* and the *50-year forecast of hardwood availability (2014)*. Estimates for the Forestry Commission (FC) estate are derived from the FC's sub-compartment database (SCDB), while those for the Private sector (i.e. non-FC) estate are derived from information collected in the NFI field survey. A fuller description of these data sources and how they are used in the production of estimates, including sampling standard errors (SEs) attached to the Private sector estimates, is provided in the earlier documents.

Results are provided for stocked area at 31 March 2012 (**Figures 1–2** and **Tables 1–3**), felled area (**Table 4**), standing volume at 31 March 2012 (**Figures 3–4** and **Tables 5–7**), biomass and carbon stocks at 31 March 2012 (**Tables 8–9**).

The values in the tables have been independently rounded, so may not add to the totals shown. In some breakdowns of Private sector estimates, the estimates in the body of the table may not sum to the quoted total because each individual value, including the total, has been independently generated by the estimation procedure used for results from the NFI sample survey. Sampling SEs attached to Private sector estimates are expressed in relative terms (%) to the right of the relevant estimate. Percentages in the pie charts may also not sum to 100 due to rounding.

Stocked area at 31 March 2012

Figure 1 Principal tree species composition by stocked area at 31 March 2012

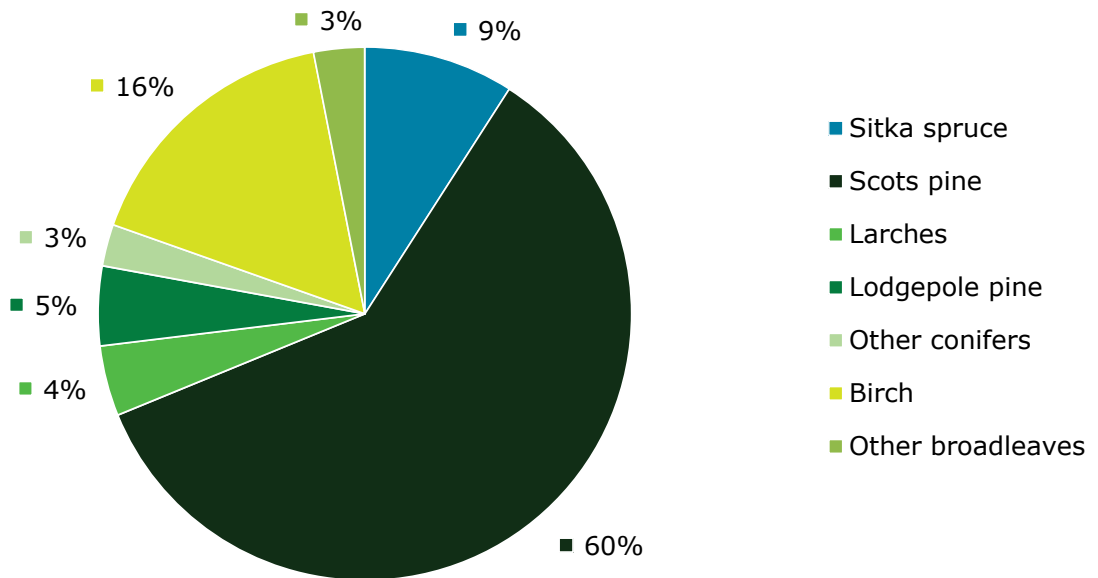
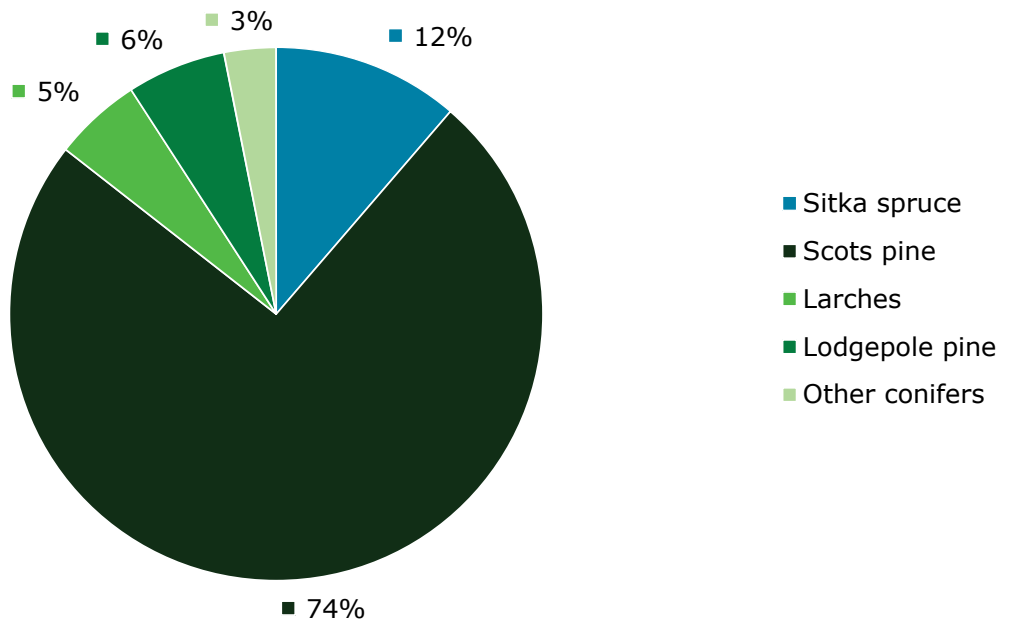


Figure 2 Principal conifer tree species composition by stocked area at 31 March 2012



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Table 1 Stocked area by principal tree species at 31 March 2012

Principal species	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
Conifers				
Sitka spruce	1.6	4.1	19	5.6
Scots pine	4.9	32.0	5	36.9
Larches	0.5	2.1	23	2.6
Lodgepole pine	1.1	1.9	29	3.0
Other conifers	0.4	1.2	32	1.6
All conifers	8.3	41.5	3	49.8
Broadleaves				
Birch	0.2	10.0	8	10.2
Other broadleaves	0.1	1.8	21	1.9
All broadleaves	0.3	11.8	6	12.1
All species				
All species	8.6	53.6	2	62.3

Table 2 Stocked area by age class at 31 March 2012

Age class	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers				
0-10 years	0.3	4.4	16	4.7
11-20 years	0.3	4.5	19	4.8
21-40 years	0.8	13.4	10	14.2
41-60 years	5.2	12.8	12	18.0
61-80 years	1.0	2.6	28	3.6
81+ years	0.8	3.8	22	4.6
Total	8.3	41.5	3	49.8
All broadleaves				
0-10 years	0.1	2.1	28	2.2
11-20 years	0.0	1.2	28	1.3
21-40 years	0.0	3.7	19	3.7
41-60 years	0.1	2.8	20	2.9
61-80 years	0.0	1.5	39	1.5
81+ years	0.0	0.6	59	0.6
Total	0.3	11.8	6	12.1
All species				
0-10 years	0.4	6.6	14	7.0
11-20 years	0.3	5.7	17	6.0
21-40 years	0.8	17.4	9	18.2
41-60 years	5.3	15.7	10	21.0
61-80 years	1.0	3.9	24	4.9
81+ years	0.8	4.4	20	5.3
Total	8.6	53.6	2	62.3

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Table 3 Stocked area by mean stand DBH class at 31 March 2012

Mean stand DBH	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers				
0-7 cm	0.5	5.2	16	5.7
7-10 cm	0.2	3.8	21	4.0
10-15 cm	1.0	7.6	10	8.6
15-20 cm	2.4	5.1	18	7.5
20-30 cm	2.8	10.6	12	13.4
30-40 cm	1.3	4.2	19	5.4
40-60 cm	0.2	3.6	22	3.8
60+ cm	0.0	1.5	30	1.5
Total	8.3	41.5	3	49.8
All broadleaves				
0-7 cm	0.1	2.3	26	2.4
7-10 cm	0.0	2.5	24	2.5
10-15 cm	0.1	2.2	26	2.2
15-20 cm	0.0	0.7	40	0.8
20-30 cm	0.0	2.7	23	2.7
30-40 cm	0.0	0.7	27	0.7
40-60 cm	0.0	0.5	34	0.5
60+ cm	0.0	0.3	60	0.3
Total	0.3	11.8	6	12.1
All species				
0-7 cm	0.6	7.6	13	8.2
7-10 cm	0.2	6.2	16	6.4
10-15 cm	1.1	10.0	9	11.1
15-20 cm	2.4	5.9	16	8.3
20-30 cm	2.8	13.2	11	16.0
30-40 cm	1.3	5.0	17	6.3
40-60 cm	0.2	4.2	19	4.4
60+ cm	0.0	1.5	28	1.5
Total	8.6	53.6	2	62.3

Table 4 Felled area at 31 March 2012

Clearfelled area	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
	0.7	2.4	31	3.1

Standing volume at 31 March 2012

Figure 3 Principal tree species composition by standing volume at 31 March 2012

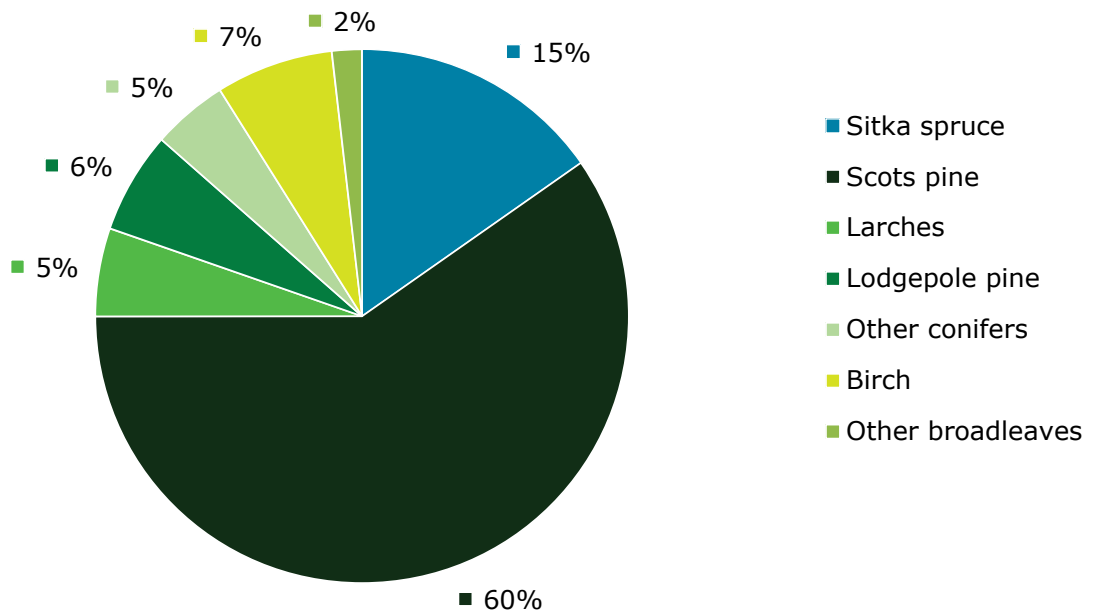
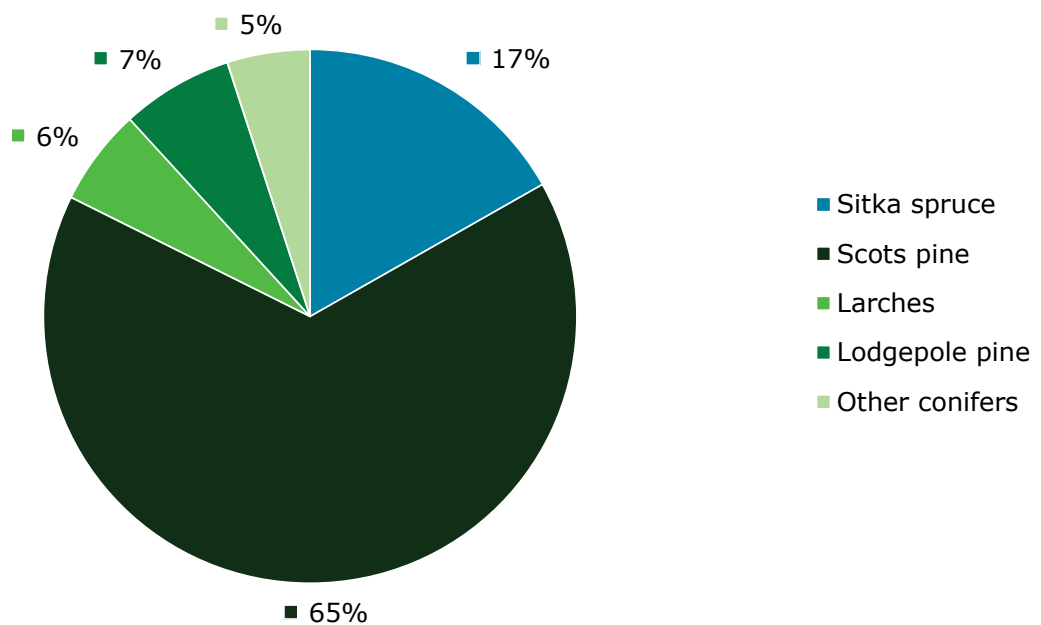


Figure 4 Principal conifer tree species composition by standing volume at 31 March 2012



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Table 5 Standing volume by principal tree species at 31 March 2012

Principal species	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
Conifers				
Sitka spruce	441	1,402	27	1,843
Scots pine	1,032	6,172	7	7,204
Larches	95	549	25	644
Lodgepole pine	217	526	33	743
Other conifers	94	458	36	552
All conifers	1,880	9,160	6	11,040
Broadleaves				
Birch	22	836	11	858
Other broadleaves	5	215	36	220
All broadleaves	27	1,056	12	1,082
All species				
All species	1,906	10,220	5	12,126

Table 6 Standing volume by age class at 31 March 2012

Age class	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
All conifers				
0–20 years	4	142	25	146
21–40 years	123	2,314	15	2,437
41–60 years	1,271	4,702	13	5,973
61–80 years	237	905	32	1,142
81+ years	245	1,097	27	1,342
Total	1,880	9,160	6	11,040
All broadleaves				
0–20 years	0	23	33	23
21–40 years	1	329	18	329
41–60 years	13	431	20	443
61–80 years	7	208	38	214
81+ years	6	66	50	73
Total	27	1,056	12	1,082
All species				
0–20 years	4	161	23	166
21–40 years	124	2,690	13	2,813
41–60 years	1,284	5,115	12	6,398
61–80 years	244	1,064	28	1,308
81+ years	251	1,190	25	1,441
Total	1,906	10,220	5	12,126

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Table 7 Standing volume by mean stand DBH class at 31 March 2012

Mean stand DBH	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
All conifers				
0–10 cm	4	79	19	84
10–15 cm	156	773	16	929
15–20 cm	627	1,474	20	2,102
20–30 cm	714	3,927	13	4,640
30–40 cm	314	1,140	20	1,454
40–60 cm	64	1,493	22	1,557
60+ cm	0	274	34	274
Total	1,880	9,160	6	11,040
All broadleaves				
0–10 cm	0	93	24	93
10–15 cm	12	218	24	229
15–20 cm	11	80	37	91
20–30 cm	0	301	21	301
30–40 cm	2	145	37	148
40–60 cm	1	102	34	103
60+ cm	0	117	64	117
Total	27	1,056	12	1,082
All species				
0–10 cm	5	167	16	172
10–15 cm	168	1,013	13	1,182
15–20 cm	639	1,582	19	2,221
20–30 cm	714	4,181	13	4,895
30–40 cm	316	1,314	20	1,630
40–60 cm	65	1,629	21	1,693
60+ cm	0	333	36	333
Total	1,906	10,220	5	12,126

Biomass and carbon stocks at 31 March 2012

Table 8 Standing biomass by principal tree species at 31 March 2012

Principal species	FC	Private sector		Total
	biomass (000 odt)	biomass (000 odt)	SE%	biomass (000 odt)
Conifers				
Sitka spruce	278	821	26	1,099
Scots pine	764	4,389	7	5,153
Larches	65	337	24	402
Lodgepole pine	162	353	32	514
Other conifers	55	253	37	308
All conifers	1,324	6,192	5	7,516
Broadleaves				
Birch	20	888	11	908
Other broadleaves	5	202	33	207
All broadleaves	25	1,094	11	1,120
All species				
All species	1,349	7,286	5	8,635

Table 9 Total carbon stocks in principal tree species at 31 March 2012

Principal species	FC	Private sector		Total
	carbon (000 t)	carbon (000 t)	SE%	carbon (000 t)
Conifers				
Sitka spruce	139	411	26	549
Scots pine	382	2,194	7	2,577
Larches	33	168	24	201
Lodgepole pine	81	176	32	257
Other conifers	28	127	37	154
All conifers	662	3,096	5	3,758
Broadleaves				
Birch	10	444	11	454
Other broadleaves	2	101	33	104
All broadleaves	13	547	11	560
All species				
All species	675	3,643	5	4,318

NFI national reports and papers

The principal themes reported on for the 2011 woodland profile and future forecasts are:

- 2011 preliminary estimates of broadleaved species in British woodlands
- 2011 standing coniferous timber volume
- 25-year forecast of softwood availability
- 25-year forecast of coniferous standing volume and increment
- 2011 biomass in live woodland trees in Britain
- 2011 carbon in live woodland trees in Britain

The principal themes reported on for the 2012 woodland profile and future forecasts are:

- 50 year forecast of softwood availability
- 50 year forecast of hardwood availability

Each theme has a series of reports, papers and data, tailored for different audiences and uses. All the documents and data can be found on the NFI website www.forestry.gov.uk/inventory.

Glossary

A glossary of terms is presented in the full suite of forecast reports which can be found at www.forestry.gov.uk/forecast.

Official Statistics

This is an Official Statistics publication. More information about Official Statistics and the UK Statistics Authority is available at www.statisticsauthority.gov.uk

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