



NATIONAL INVENTORY OF WOODLAND AND TREES



ENGLAND

County Report for

SHROPSHIRE



Forestry Commission

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Woodland Surveys Branch of Forest Research was responsible for carrying out the survey and analysing the data. A large number of Forestry Commission and contract staff were involved in the survey from its inception.

Preparation of the digital cartography for Shropshire was carried out by Graham Bull, Woodland Survey Officer, and Woodland GIS Officers Chris Brown, Robert Beck and Esther Whitton. Data processing and analysis was carried out by Woodland Data Officers Justin Gilbert and Shona Cameron.

The authors of this Report are Steve Smith (Head of Woodland Surveys) and Justin Gilbert (Woodland Data Officer) of Forest Research.

INTRODUCTION

This report presents the results for Shropshire from the Forestry Commission National Inventory of Woodland and Trees (NIWT).

The Inventory consists of two separate surveys -

- The Main Woodland Survey (MWS) covering woodlands of 2 hectares and over
- The Survey of Small Woodland and Trees (SSWT) covering Small Woods, Groups of Trees, Linear Features and Individual Trees.

BACKGROUND

Since 1924 the Forestry Commission has carried out a number of national woodland surveys at intervals of between 15 and 20 years. The previous survey was carried out between 1979 and 1982. With the statistics becoming increasingly out of date the Forestry Commission decided to undertake a new survey: the *National Inventory of Woodland and Trees*.

The survey fieldwork for Great Britain was completed in July 2000. Work began in Scotland in 1994, followed by Southern England, Wales and Northern England.

SURVEY METHODS

Main Woodland Survey

In England, Woodland Surveys derived a digital map of all woodland showing Interpreted Forest Types from 1:25 000 scale aerial photography. This provided the basis for the sampling.

The digital map gives the extent of all woodland over 2 hectares and this was updated as survey work progressed. The maps on pages 4-6 show: overall woodland cover; woodland by ownership; and woodland by Interpreted Forest Type, respectively. The total area of woodland was obtained from the digital map with ground sampling undertaken to evaluate a wide range of woodland information such as species, age and stocking.

From the digital map the area of each woodland was recorded and this information was used to determine the intensity at which any selected woodland would be sampled. The overall sampling scheme was as follows:

- 2.0ha - <100ha : every fifth wood
- 100ha - <500ha : two woods in five
- 500ha and larger : all woods

1 hectare square plots were used to sample the selected woodlands on the ground. This was a change of practice from all previous Census surveys, where whole woods have been selected for survey. For each of the three bands of woodland area a different sampling grid was used with the density of the squares being reduced as the woodlands increase in size. The overall aim was to sample 1% of the woodland in each size class.

Survey of Small Woodland and Trees_

The land area of England was stratified into coastal and inland 1 km x 1 km squares and a random sample of 1 km² plots were then selected, representing around 1% of the land area. 1:25 000 scale aerial photos were then used to identify features in each sample square. Each 1 km² was then divided into 16 parts, and two of these were selected at random for field data collection. Data was collected on Small Woodlands (0.10 - <2.00 ha), Linear Features, Groups and Individual Trees. The survey did not collect information from areas of developed land of 2 hectares or more.

MAIN POINTS FROM THE SURVEY RESULTS

- The total area of woodland of 0.1 hectares and over in Shropshire is 29,482 hectares. This represents 8.5% of the land area. (Table 1)
- Broadleaved woodland is the dominant forest type representing 57.7 % of all woodland. Conifer woodland represents 29.1 %, Mixed woodland 8.7 % and Open Space within woodlands 3.9 %. (Table 2)
- The main conifer species is larch covering 2,138 hectares or 21.8 % of all conifer species. The main broadleaved species is oak covering 5,605 hectares or 30.5 % of all broadleaved species. (Table 3)
- 4,287 hectares or 16 % of woodland over 2 hectares is owned by or leased to the Forestry Commission, and 21,848 hectares or 84 % of woodland is in Other ownership. (Table 6)
- There are a total of 1,664 woods over 2 ha within Shropshire with a mean wood area of 15.8 hectares. (Table 7a) There are a total of 8,794 woods from 0.1 - <2.0 hectares with a mean wood area of 0.38 hectares. (Table 14)
- There are 5.3 million live trees outside woodland in Shropshire. (Table 15)
- Woodland land cover increased by over 3,674 hectares from 7.2 % to 8.3 % of the land area between 1980 and 1998. (Table 19)
- The area of broadleaves increased by 39% between 1980 and 1998, with the relative proportion of broadleaves to conifers increasing from 54 % to 65 %. (Table 20)

INVENTORY REPORTS

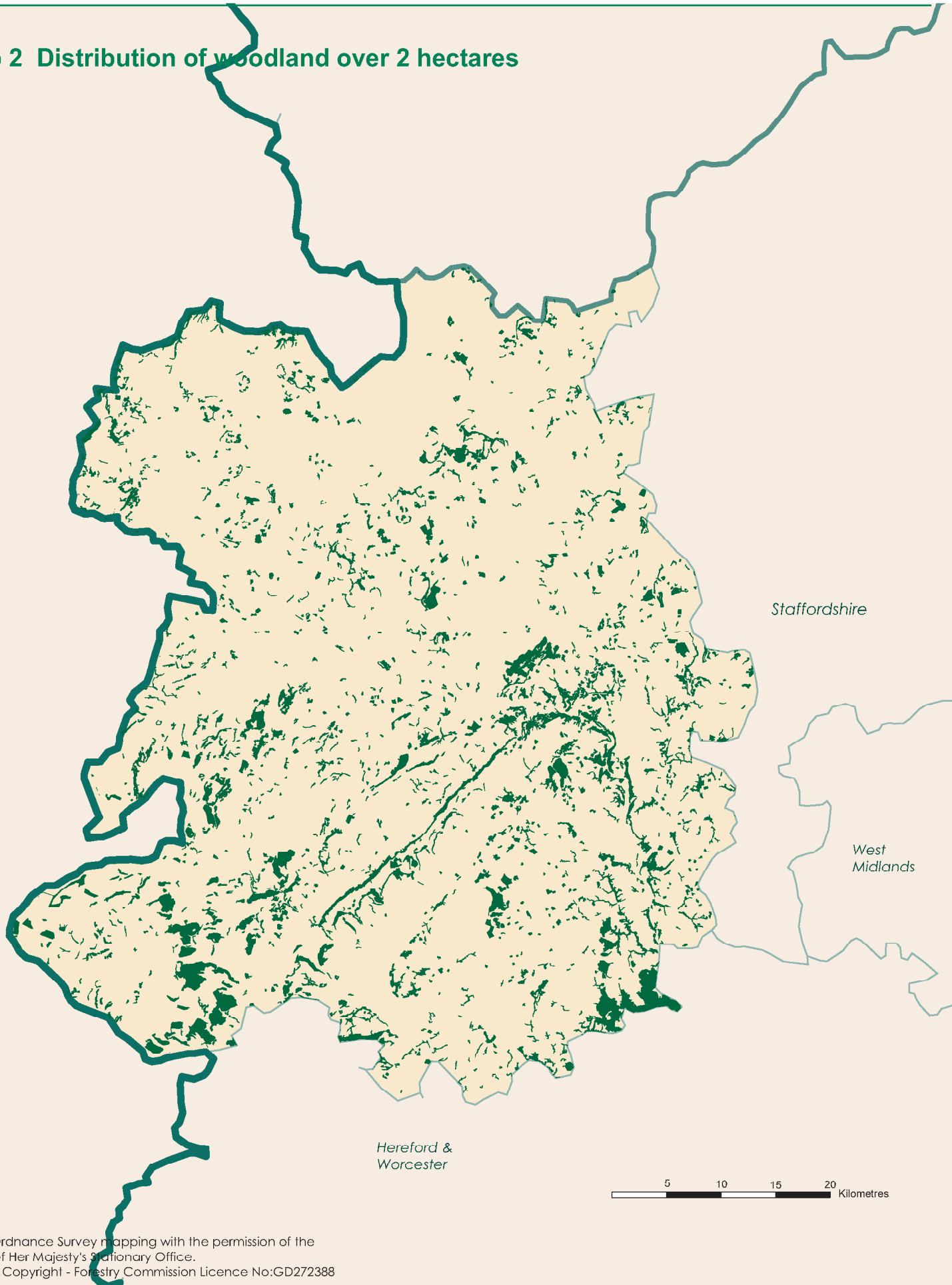
As well as this report for Shropshire, reports are available for the other counties in the region as shown on the map opposite. Also available are region and county reports for England as well as a report for the country as a whole. Wales and Scotland are also covered by reports.

Map 1 Regional and county boundaries



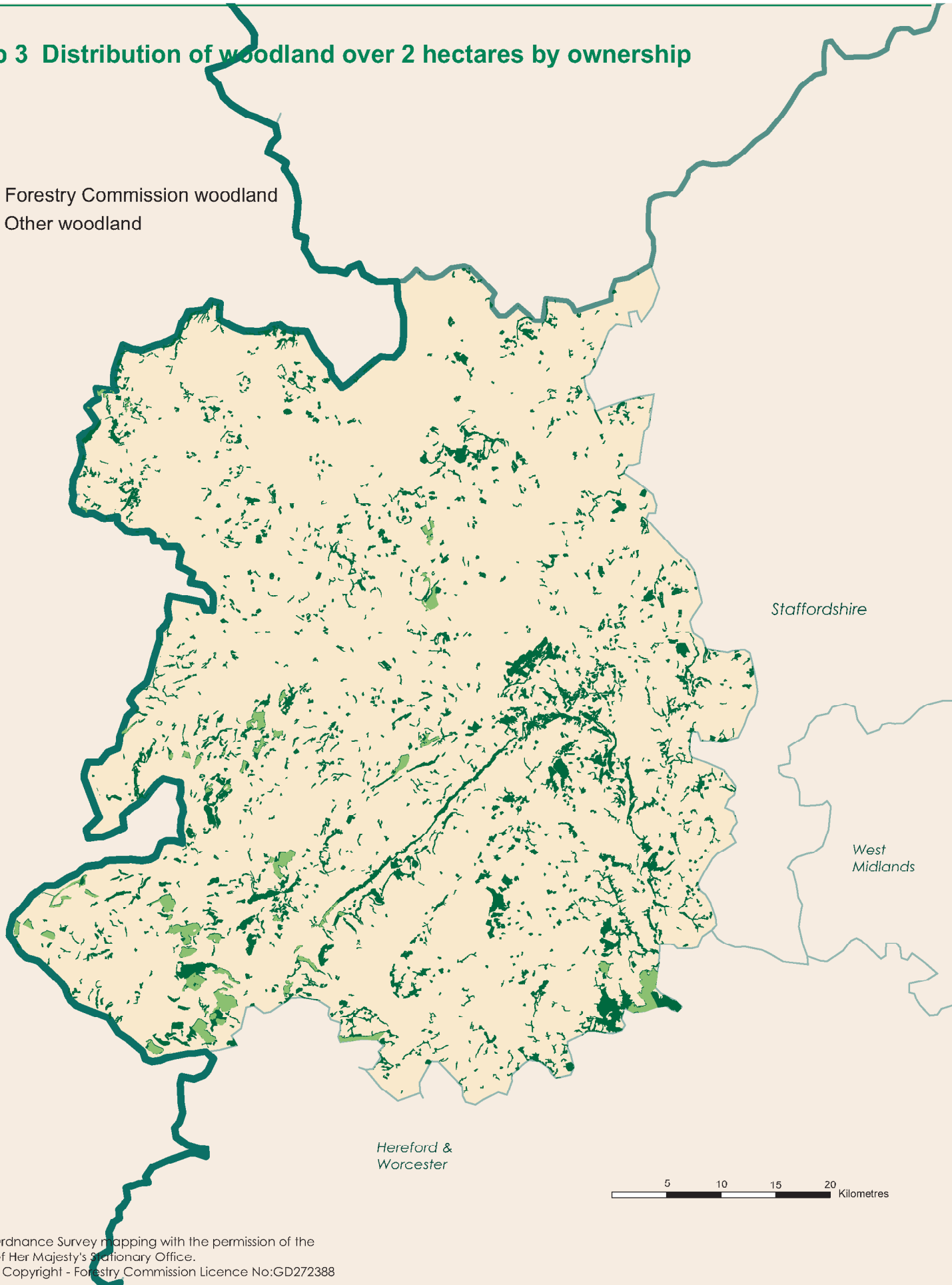
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Map 2 Distribution of woodland over 2 hectares



Map 3 Distribution of woodland over 2 hectares by ownership

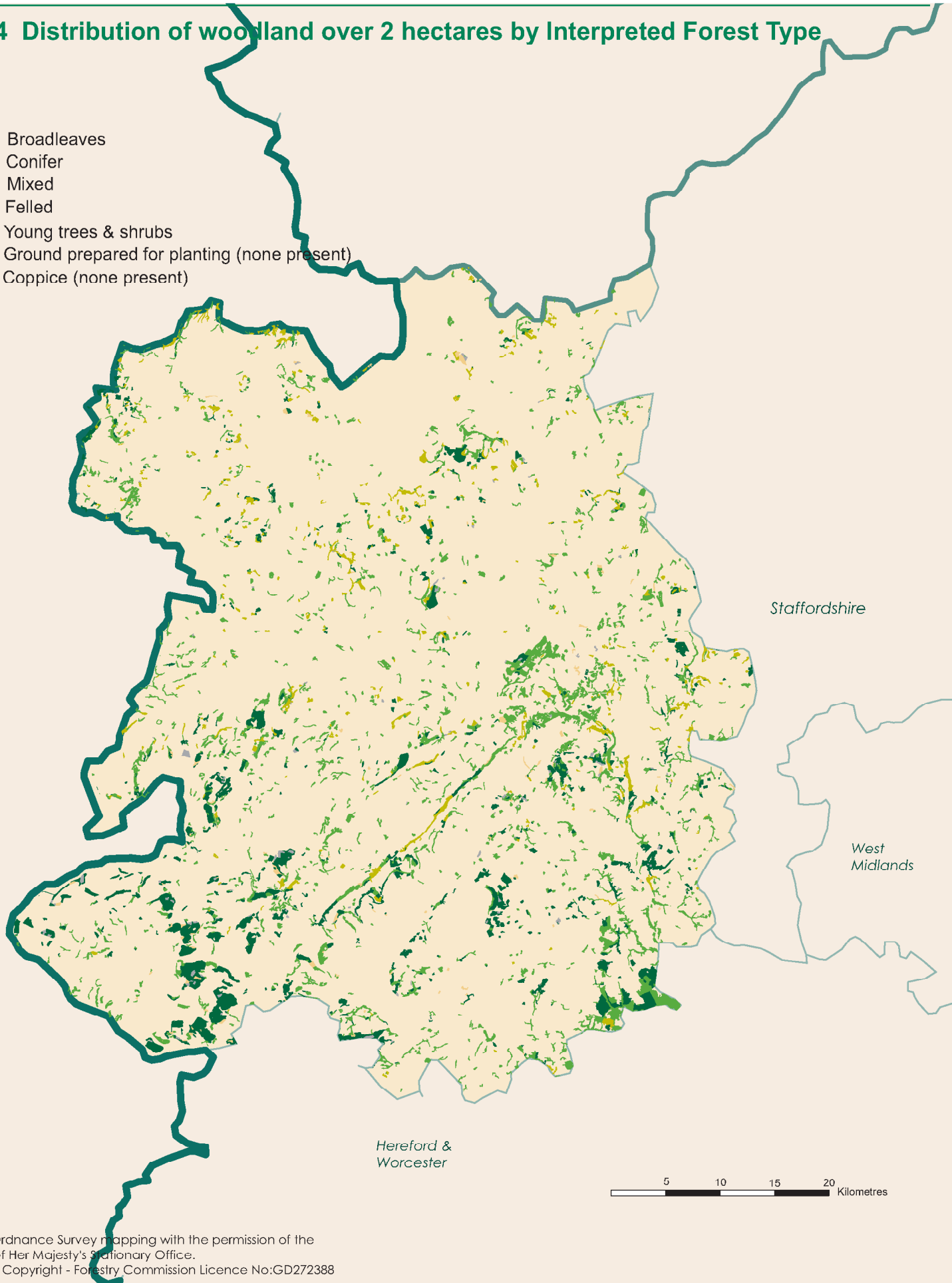
- Forestry Commission woodland
- Other woodland



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Map 4 Distribution of woodland over 2 hectares by Interpreted Forest Type

- Broadleaves
- Conifer
- Mixed
- Felled
- Young trees & shrubs
- Ground prepared for planting (none present)
- Coppice (none present)



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SUMMARY RESULTS FROM THE NATIONAL INVENTORY OF WOODLAND AND TREES (NIWT)

Both the Main Woodland Survey and the Survey of Small Woodland and Trees contributed to the estimate of woodland area for Shropshire.

Tables 1-3 show the combined woodland area from the Main Woodland Survey and the Survey of Small Woodland and Trees.

Tables 4 and 5 summarise the numbers of live trees outside woodland, and the lengths of Linear Features from the Survey of Small Woodland and Trees.

Table 1:	Woodland area by woodland size class
Table 2:	Woodland area by forest type and woodland size
Table 3:	Woodland area by principal species and woodland size
Table 4:	Numbers of live trees outside woodland by feature type
Table 5:	Lengths of Linear Features

Note: The figures in many of the tables may not add due to rounding

Table 1 Woodland area by woodland size class

Woodland size (ha)	Woodland area (ha)	% of Woodland area
2.00 and over	26,135	88.6
0.25 - < 2.00	2,814	9.5
0.10 - < 0.25	533	1.8
Total area of woodland	29,482	100.0
% Woodland land cover	8.5	

1. Area of Shropshire, including inland water, 348,767 ha based on digital boundaries used in the 1991 Census of Population

Table 2 Woodland area by forest type and woodland size

Forest type	Woodland size (ha)		Total area (ha)	Percentage of total area
	2.0 and over	0.1 - <2.0		
Conifer	8,484	99	8,583	29.1
Broadleaved	13,877	3,143	17,020	57.7
Mixed	2,515	48	2,563	8.7
Coppiced	0	0	0	0.0
Copp-w-standards	91	0	91	0.3
Windblow	0	0	0	0.0
Felled	83	0	83	0.3
Open Space	1,085	57	1,142	3.9
Total	26,135	3,347	29,482	100

1. See Glossary for definitions of forest types.

Table 3 Woodland area by principal species and woodland size

Species/Groups	Woodland size (ha)		Total area (ha)	Percentage of total area	
	2.0 and over	0.1 -<2.0		Category*	Species**
Pine	1,918	37	1,955	20.0	6.9
Sitka spruce	1,409	0	1,409	14.4	5.0
Larch	2,138	0	2,138	21.8	7.6
Other conifers	4,022	77	4,099	41.8	14.6
Mixed conifers	195	0	195	2.0	0.7
Total conifers	9,682	114	9,796	100.0	34.8
Oak	5,134	471	5,605	30.5	19.9
Beech	1,624	0	1,624	8.8	5.8
Sycamore	960	224	1,184	6.4	4.2
Ash	2,187	284	2,471	13.5	8.8
Birch	968	0	968	5.3	3.4
Elm	82	28	110	0.6	0.4
Other broadleaves	2,950	1,550	4,500	24.5	16.0
Mixed broadleaves	1,288	621	1,909	10.4	6.8
Total broadleaves	15,193	3,178	18,371	100.0	65.2
Total all species***	24,876	3,290	28,166		100.0

*Category - species/group percentage of conifer or broadleaved category

**Species/group percentage of all species

***Excludes the 1.316 ha of Coppice, Felled and Open space areas which were included in Table 2

1. The standard errors of the area estimates for woodland of 2 ha and over for the most common species or species groups are as follows

Conifers	6%
Broadleaves	4%
Other conifers	11%
Oak	8%
Other broadleaf	14%
2. Where the standard errors of these summary measures are 10% or less, the confidence intervals will be approximately symmetrical; the true value is expected to be within +/- one standard error for about 68% (or about two-thirds) of all cases, and within +/- two standard errors for about 95% of all cases. Where percentage standard errors are larger, e.g. for less common species or more variable species composition, the confidence intervals will be less symmetrical (and wider).

Table 4 Numbers of live trees outside woodland by feature type

Feature type	Total number of features	Total number of live trees	Mean number of trees per feature	Tree density (per sq km)
Groups	145,700	1,011,400	/	290
Narrow Linear Features	86,200	4,119,700	48	1,181
Individual Trees	165,900	165,900	1	48
Total		5,297,000		1,519

1. Land area used to calculate tree density 348,767ha based on digital boundaries used in 1991 Census of Population
2. The standard errors of the live tree number estimates for these feature types are:

Groups	17%
Narrow Linear Features	15%
Individual Trees	15%
3. Where the standard errors of these summary measures are 10% or less, the confidence intervals will be approximately symmetrical; the true value is expected to be within +/- one standard error for about 68% (or about two-thirds) of all cases, and within +/- two standard errors for about 95% of all cases. Where percentage standard errors are larger, e.g. for less common species or more variable species composition, the confidence intervals will be less symmetrical (and wider).
4. See Glossary for definitions of feature types.

Table 5 Lengths of Linear Features

Feature type	Total number of features	Total length of features (km)	Density of features (m per sq km)
Wide Linear Features	854	183	52
Narrow Linear Features	86,200	6,227	1,785
Total		6,410	1,838

1. Land area used to calculate feature density 348,767ha based on digital boundaries used in 1991 Census of Population
2. The standard errors of the length estimates for these feature types are:

Wide Linear Features	99%
Narrow Linear Features	13%
3. Where the standard errors of these summary measures are 10% or less, the confidence intervals will be approximately symmetrical; the true value is expected to be within +/- one standard error for about 68% (or about two-thirds) of all cases, and within +/- two standard errors for about 95% of all cases. Where percentage standard errors are larger, e.g. for less common species or more variable species composition, the confidence intervals will be less symmetrical (and wider).
4. See Glossary for definitions of feature type.

RESULTS FROM THE MAIN WOODLAND SURVEY (MWS)

Survey Method

Woods were selected from the digital map of woodland of 2 hectares and over, then sampled using a random grid of 1 hectare sample plots. The density of sample plots was reduced as the sampled woodland increase in size, the general aim being to sample 1% of the woodland area. The ground sampling evaluated a wide range of data such as species, age and stocking.

Table 6:	Summary of woodland area by ownership
Chart:	Woodland area by ownership
Table 7a:	Size class distribution of woodland
Table 7b:	Size class distribution of woodland by ownership units
Table 8:	Area of woodland by forest type and ownership
Chart:	Area of woodland by forest type
Table 9a:	Area of High Forest by principal species and ownership
Graph:	Area of High Forest by principal species and ownership
Table 9b:	Area of High Forest by principal species, ownership and category
Graph:	High Forest Category 1
	Area by principal species and ownership
Graph:	High Forest Category 2
	Area by principal species and ownership
Table 10a:	High Forest Category 1
	Area by principal species and planting year class
Graph:	High Forest Category 1
	Area by planting year class
Table 10b:	High Forest Category 1
	Forestry Commission: area by principal species and planting year class
Graph:	High Forest Category 1
	Forestry Commission - area by planting year class
Table 10c:	High Forest Category 1
	Other ownership: area by principal species and planting year class
Graph:	High Forest Category 1
	Other ownership: area by planting year class
Table 11:	High Forest: principal species by planting year class
Table 12:	Ownership type by area and percentage
Chart:	Ownership type by area

Note: The figures in many of the tables may not add due to rounding

Table 6 Summary of woodland area by ownership

Ownership	ha	% woodland
Forestry Commission	4,287	16
Other	21,848	84
Total area of woodland	26,135	100

1. Woodland area from aerial photographic interpretation map updated to 31 March 1998
2. See Glossary for definitions of ownership types

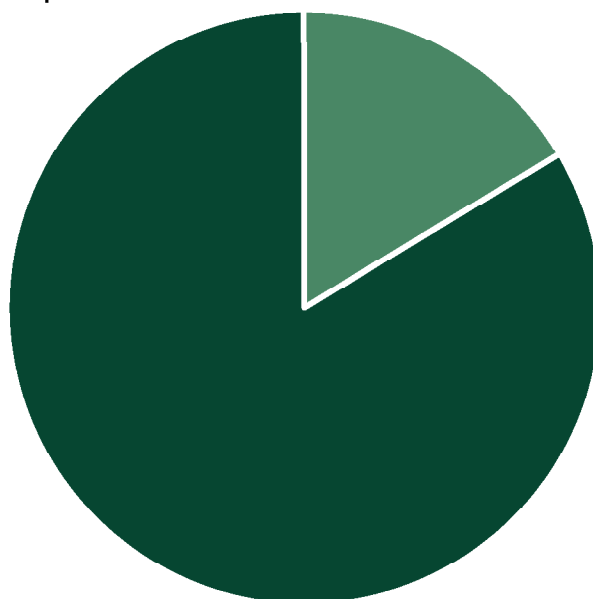
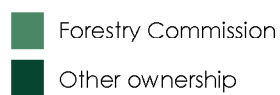
Woodland area by ownership

Table 7a Size class distribution of woodland

Size class (ha)	Number of woods	Total area (ha)	Percent of total area	Mean wood area (ha)
<10	1,235	5,358	20	4.3
10 - <20	203	2,786	11	13.7
20 - <50	133	4,308	16	32.4
50 - <100	53	3,842	15	72.5
<100	1,624	16,293	62	10.0
100 - <500	36	6,606	25	183.5
500 and >	4	3,322	13	830.5
All woods	1,664	26,221	100	15.8

Table 7b Size class distribution of woodland by ownership units

Size class (ha)	FC or Other	Number of woods	Total area (ha)	Percent of total area	Mean wood area (ha)
<10	FC	18	97	0	5.4
	O	1,329	5,586	21	4.2
10 - <20	FC	8	125	0	15.6
	O	209	2,866	11	13.7
20 - <50	FC	18	623	2	34.6
	O	128	4,095	16	32.0
50 - <100	FC	11	830	3	75.4
	O	43	3,083	12	71.7
<100	FC	55	1,674	6	30.4
	O	1,709	15,630	60	9.1
100 - <500	FC	11	2,048	8	186.2
	O	26	4,417	17	169.9
500 and >	FC	1	565	2	564.8
	O	3	1,887	7	628.9
Total	FC	67	4,287	16	64.0
	O	1,738	21,934	84	12.6

1. Table 7a and 7b are based solely on the digital woodland map. The other MWS tables are derived from the field sample data.
2. The total area in Tables 7a and 7b is 86 hectares more than recorded in Table 6. This is mainly due to the field samples recording some land in other land uses not differentiated from woodland in the digital map.
3. The data available from the digital map enable the identification of woodlands according to their ownerships, Forestry Commission or Other. The entries in table 7b cannot be added to derive table 7a as some woods may consist of both Forestry Commission and Other ownership(s).

For example, the Forestry Commission may own most of a large wood with some parts in Other ownership(s). In Table 7a the whole area would be treated as one wood and the area allocated to one size category. In Table 7b each of the ownership units would be allocated to the size category for that unit. Dividing woods by ownership can occasionally generate part woods of less than 2 hectares.

Table 8 Area of woodland by forest type and ownership

Forest type	Forestry Commission		Other		All ownerships	
	ha	%	ha	%	ha	%
Conifer	2,668	62.2	12,642	57.9	8,484	32.5
Broadleaved	1,235	28.8	5,816	26.6	13,877	53.1
Mixed	203	4.7	2,312	10.6	2,515	9.6
Coppice	0	0.0	0	0.0	0	0.0
Copp-w-Stds	0	0.0	91	0.4	91	0.3
Windblow	0	0.0	0	0.0	0	0.0
Felled	0	0.0	83	0.4	83	0.3
Open Space	181	4.2	904	4.1	1,085	4.2
Total	4,287	100.0	21,848	100.0	26,135	100.0

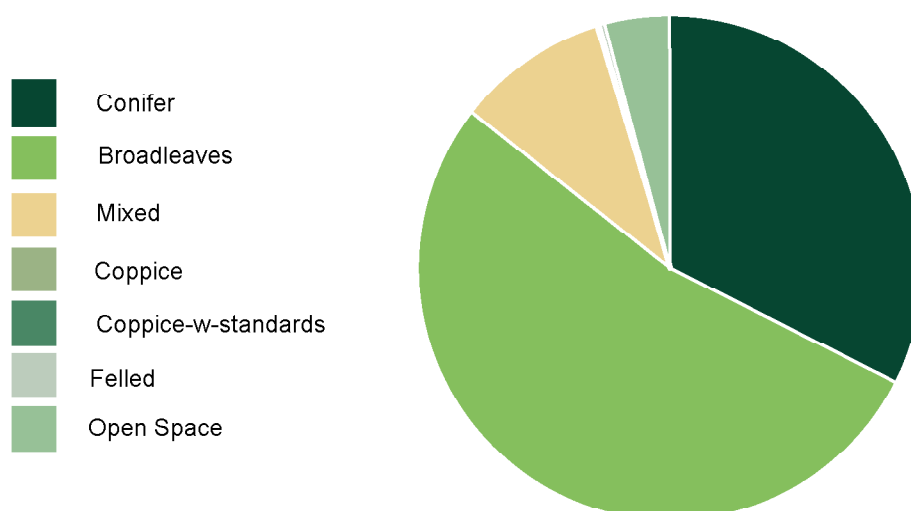
Area of woodland by forest type

Table 9a Area of high forest by principal species and ownership

Species	Forestry Commission			Other			All ownerships		
	area (ha)	cat* %	spp** %	area (ha)	cat* %	spp** %	area (ha)	cat* %	spp** %
Scots pine	313	12	8	969	14	5	1,282	13	5
Corsican pine	65	2	2	393	6	2	459	5	2
Lodgepole pine	65	2	2	112	2	1	177	2	1
Sitka spruce	481	18	12	928	13	4	1,409	15	6
Norway spruce	153	6	4	956	14	5	1,109	11	4
European larch	6	0	0	835	12	4	841	9	3
Jap/Hybrid larch	481	18	12	816	12	4	1,297	13	5
Douglas fir	626	23	15	1,152	17	6	1,778	18	7
Other conifers	516	19	13	619	9	3	1,135	12	5
Mixed conifers	13	0	0	182	3	1	195	2	1
Total conifers	2,718	100	66	6,964	100	34	9,682	100	39
Oak	270	19	7	4,864	35	23	5,134	34	21
Beech	786	57	19	837	6	4	1,624	11	7
Sycamore	63	5	2	897	6	4	960	6	4
Ash	7	1	0	2,180	16	10	2,187	14	9
Birch	95	7	2	873	6	4	968	6	4
Poplar	0	0	0	745	5	4	745	5	3
Sweet chestnut	0	0	0	145	1	1	145	1	1
Elm	0	0	0	82	1	0	82	1	0
Other broadleaves	97	7	2	1,963	14	9	2,060	14	8
Mixed broadleaves	69	5	2	1,219	9	6	1,288	8	5
Total broadleaves	1,388	100	34	13,805	100	66	15,193	100	61
Total - all species	4,106		100	20,769		100	24,876		100
Felled	0			83			83		
Total High Forest	4,106			20,852			24,959		

*cat : species percentage of Conifer or Broadleaved in the ownership category

**spp : percentage of all species in the ownership category

1. In addition to the areas shown there are 1,085ha of other areas integral to the woodland not stocked with tree species.
2. The standard errors of the all ownerships area estimates for the most common species or species groups are as follows;

Conifers	6%
Broadleaves	4%
Douglas fir	17%
Oak	8%
Ash	10%
3. Mixtures: where possible the species in mixtures have been separately recorded. Where this has not been possible they were described as 'Mixed conifers' or 'Mixed broadleaves'.
4. Confidence Intervals: where the standard errors of these summary measures are 10% or less, the confidence intervals will be approximately symmetrical; the true value is expected to be within +/- one standard error for about 68% (or about two-thirds) of all cases, and within +/- two standard errors for about 95% of all cases. Where percentage standard errors are larger, e.g. for less common species or more variable species composition, the confidence intervals will be less symmetrical (and wider).

Area of High Forest by principal species and ownership

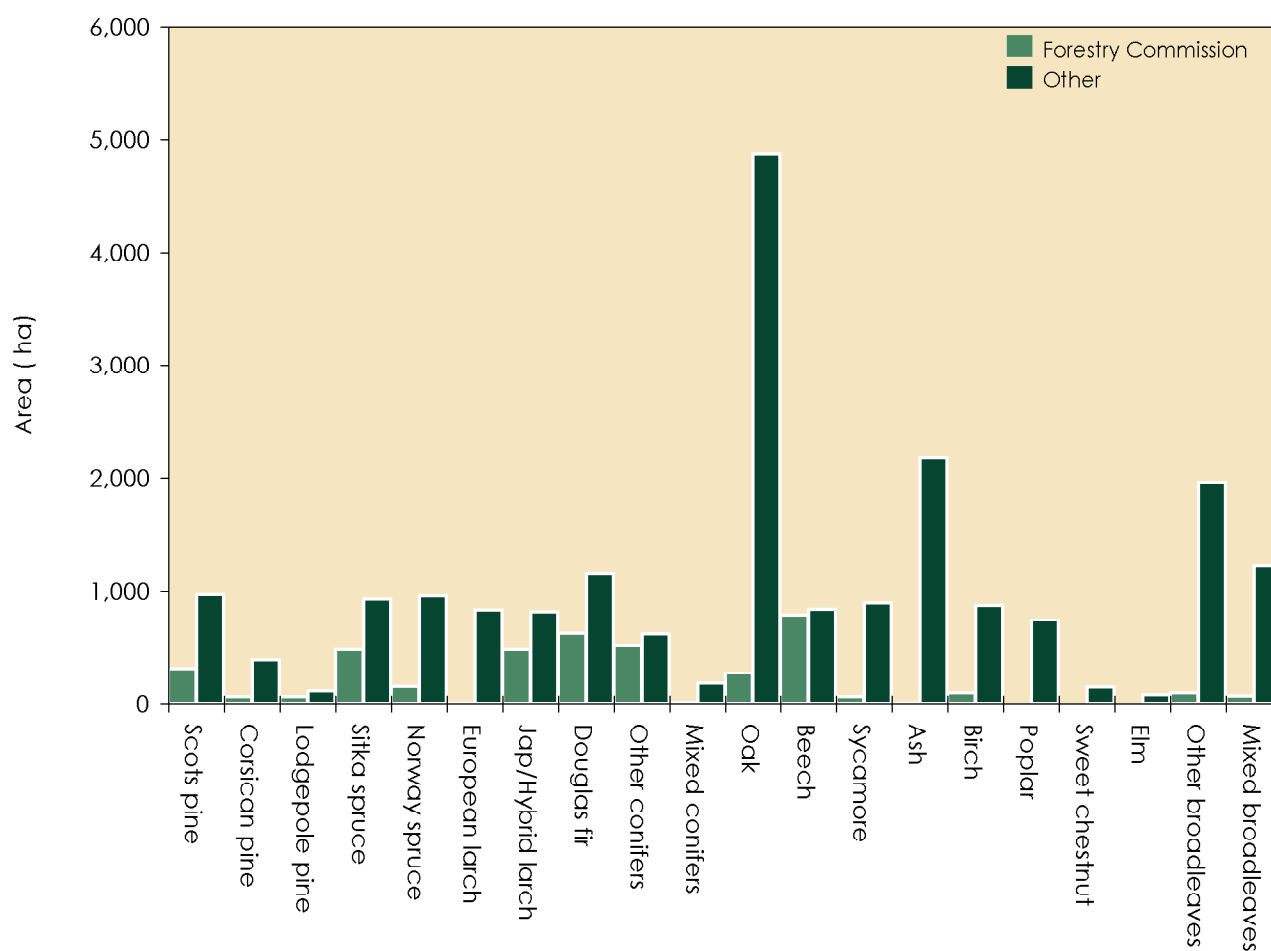


Table 9b Area of High Forest by principal species,ownership and category

Species	Forestry Commission			Other			All ownerships		
	cat. 1	cat. 2	Total (ha)	cat. 1	cat. 2	Total (ha)	cat. 1	cat. 2	Total (ha)
Scots pine	313	0	313	945	24	969	1,258	24	1,282
Corsican pine	65	0	65	393	0	393	459	0	459
Lodgepole pine	65	0	65	112	0	112	177	0	177
Sitka spruce	481	0	481	914	14	928	1,395	14	1,409
Norway spruce	153	0	153	956	0	956	1,109	0	1,109
European larch	6	0	6	835	0	835	841	0	841
Jap/Hybrid larch	481	0	481	816	0	816	1,297	0	1,297
Douglas fir	626	0	626	1,152	0	1,152	1,778	0	1,778
Other conifers	516	0	516	583	36	619	1,099	36	1,135
Mixed conifers	13	0	13	167	14	182	181	14	195
Total conifers	2,718	0	2,718	6,875	89	6,964	9,593	89	9,682
Oak	261	9	270	3,612	1,253	4,864	3,872	1,262	5,134
Beech	786	0	786	608	230	837	1,394	230	1,624
Sycamore	54	9	63	834	62	897	889	72	960
Ash	0	7	7	1,628	552	2,180	1,628	560	2,187
Birch	67	28	95	258	614	873	325	642	968
Poplar	0	0	0	736	10	745	736	10	745
Sweet chestnut	0	0	0	70	75	145	70	75	145
Elm	0	0	0	0	82	82	0	82	82
Other broadleaves	19	78	97	625	1,338	1,963	644	1,416	2,060
Mixed broadleaves	47	22	69	391	828	1,219	438	850	1,288
Total broadleaves	1,233	155	1,388	8,762	5,043	13,805	9,995	5,198	15,193
Total - all species	3,952	155	4,106	15,637	5,132	20,769	19,589	5,287	24,876

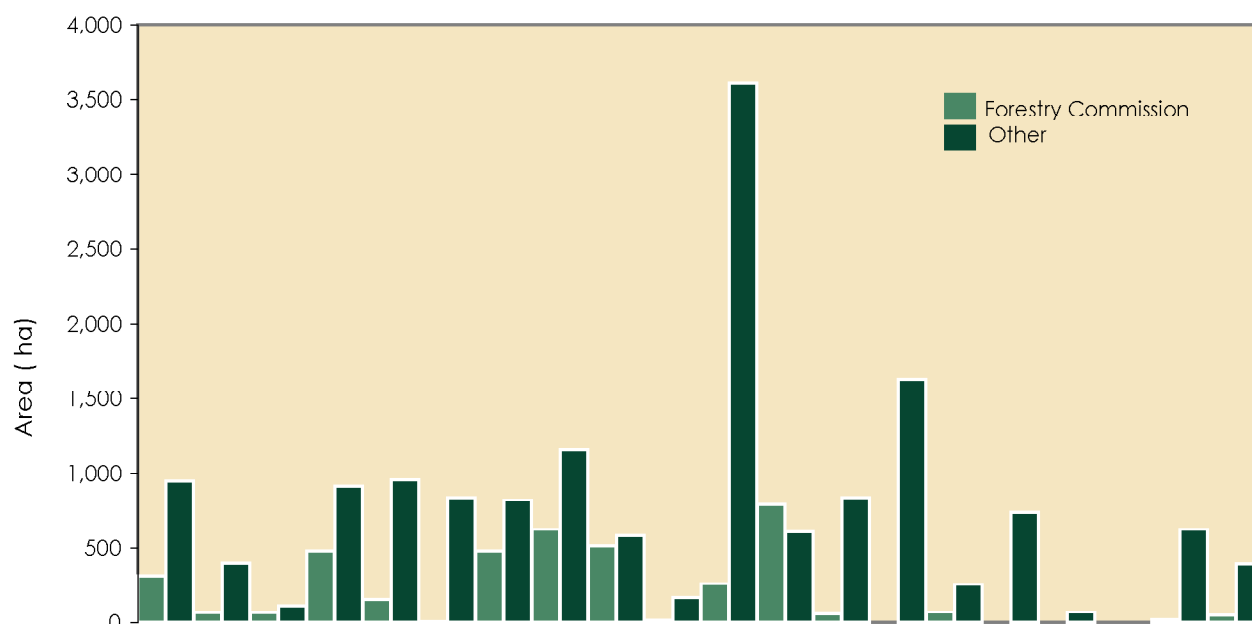
1. The standard errors of the all ownerships area estimates for the most common species or species groups (in all woodland types) are as follows

	Category 1*	Category 2*	Total High Forest	
Conifers	6%	37%	6%	
Broadleaves	6%	6%	4%	
Douglas fir	17%	-	17%	
Oak	10%	14%	8%	*See Glossary for category 1 and Category 2 descriptions
Ash	12%	19%	10%	

2. Where the standard errors of these summary measures are 10% or less, the confidence intervals will be approximately symmetrical; the true value is expected to be within +/- one standard error for about 68% (or about two-thirds) of all cases, and within +/- two standard errors for about 95% of all cases. Where percentage standard errors are larger, e.g. for less common species or more variable species composition, the confidence intervals will be less symmetrical (and wider).

3. Where possible the species in mixtures have been separately recorded. Where this has not been possible they were described as 'Mixed conifers' or 'Mixed broadleaves'.

High Forest Category 1 - Area by principal species and ownership



High Forest Category 2 - Area by principal species and ownership

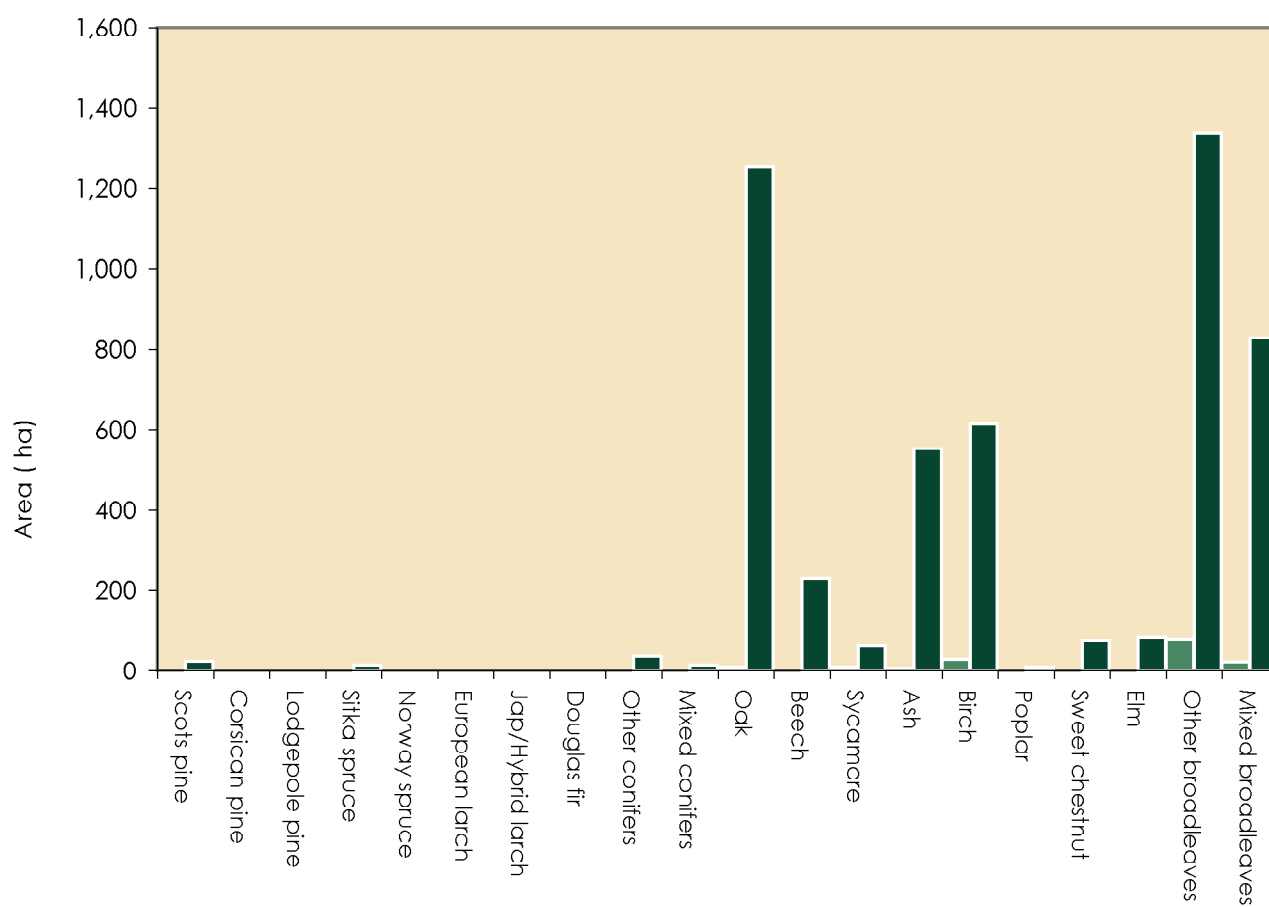
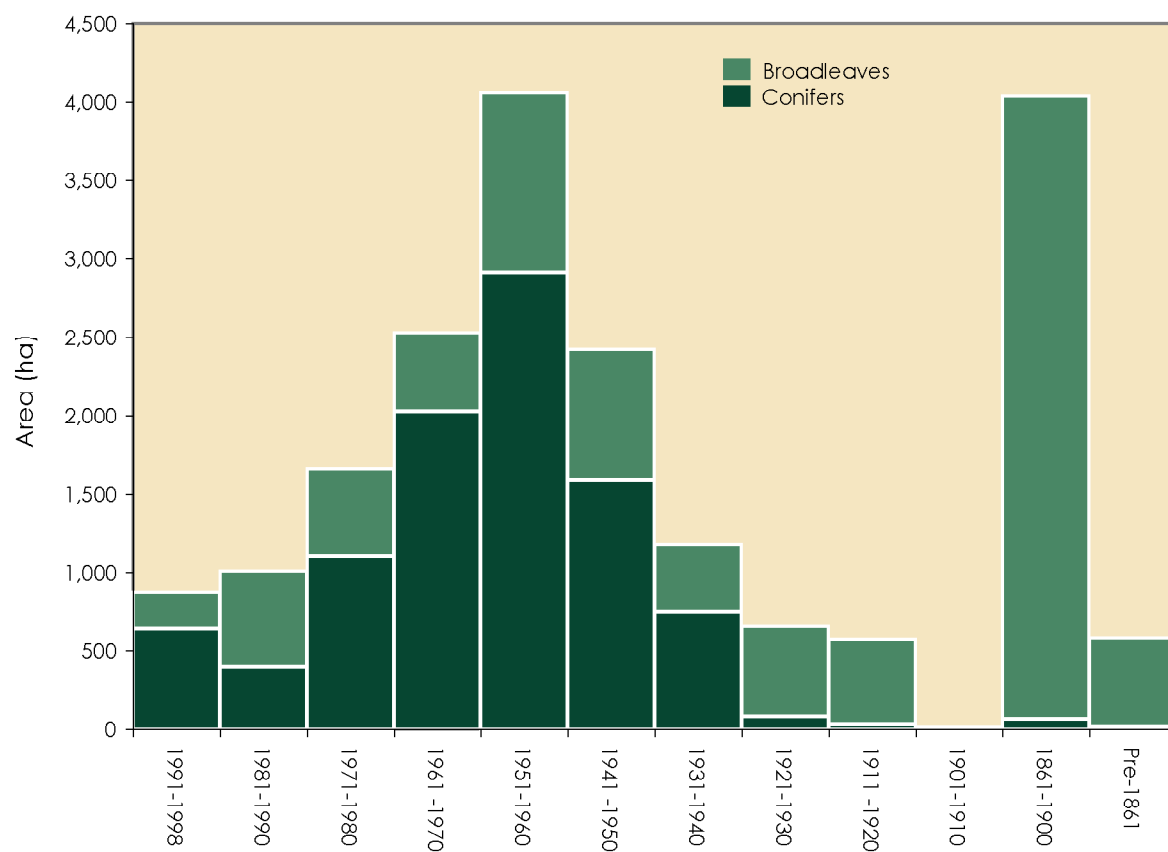


Table 10a High Forest Category 1 - Area by principal species and planting year class

Species	Planting year class*												Total (ha)
	1991-1998	1981-1990	1971-1980	1961-1970	1951-1960	1941-1950	1931-1940	1921-1930	1911-1920	1901-1910	1861-1900	Pre-1861	
Scots pine	0	57	184	182	311	370	90	32	10	0	23	0	1,258
Corsican pine	59	0	23	106	65	181	0	0	0	5	19	0	459
Lodgepole pine	0	0	23	127	27	0	0	0	0	0	0	0	177
Sitka spruce	199	63	166	204	377	298	88	0	0	0	0	0	1,395
Norway spruce	53	87	100	367	453	38	11	0	0	0	0	0	1,109
European larch	0	7	78	78	183	207	249	20	14	0	5	0	841
Jap/Hybrid larch	253	27	77	76	461	200	204	0	0	0	0	0	1,297
Douglas fir	62	83	322	514	548	147	101	0	0	0	0	0	1,778
Other conifers	15	66	109	354	411	101	4	22	5	0	0	13	1,099
Mixed conifers	0	6	21	19	74	42	0	4	0	0	14	0	181
Total conifers	641	396	1,103	2,027	2,911	1,584	746	78	29	5	61	13	9,593
Oak	75	66	49	56	60	62	188	126	173	0	2,525	494	3,872
Beech	0	19	0	5	492	191	85	290	0	0	298	14	1,394
Sycamore	0	0	63	40	279	165	48	41	105	0	146	0	889
Ash	31	116	37	93	119	202	70	74	210	7	634	37	1,628
Birch	0	58	155	22	5	38	21	0	0	0	27	0	325
Poplar	84	231	56	181	108	25	18	33	0	0	0	0	736
Sweet chestnut	0	0	0	0	22	0	0	11	0	0	14	23	70
Elm	0	0	0	0	0	0	0	0	0	0	0	0	0
Other broadleaves	5	45	175	77	38	71	0	4	10	0	219	0	644
Mixed broadleaves	34	78	21	28	27	83	0	0	48	0	117	3	438
Total broadleaves	229	612	558	500	1,149	837	429	578	545	7	3,979	571	9,995
Total - all species	869	1,008	1,661	2,527	4,060	2,421	1,176	657	574	11	4,040	585	19,589

*Age determined from records where these were available. Where records were not available or were clearly inaccurate age-class was assigned by reference to similar crops of known age in the locality.

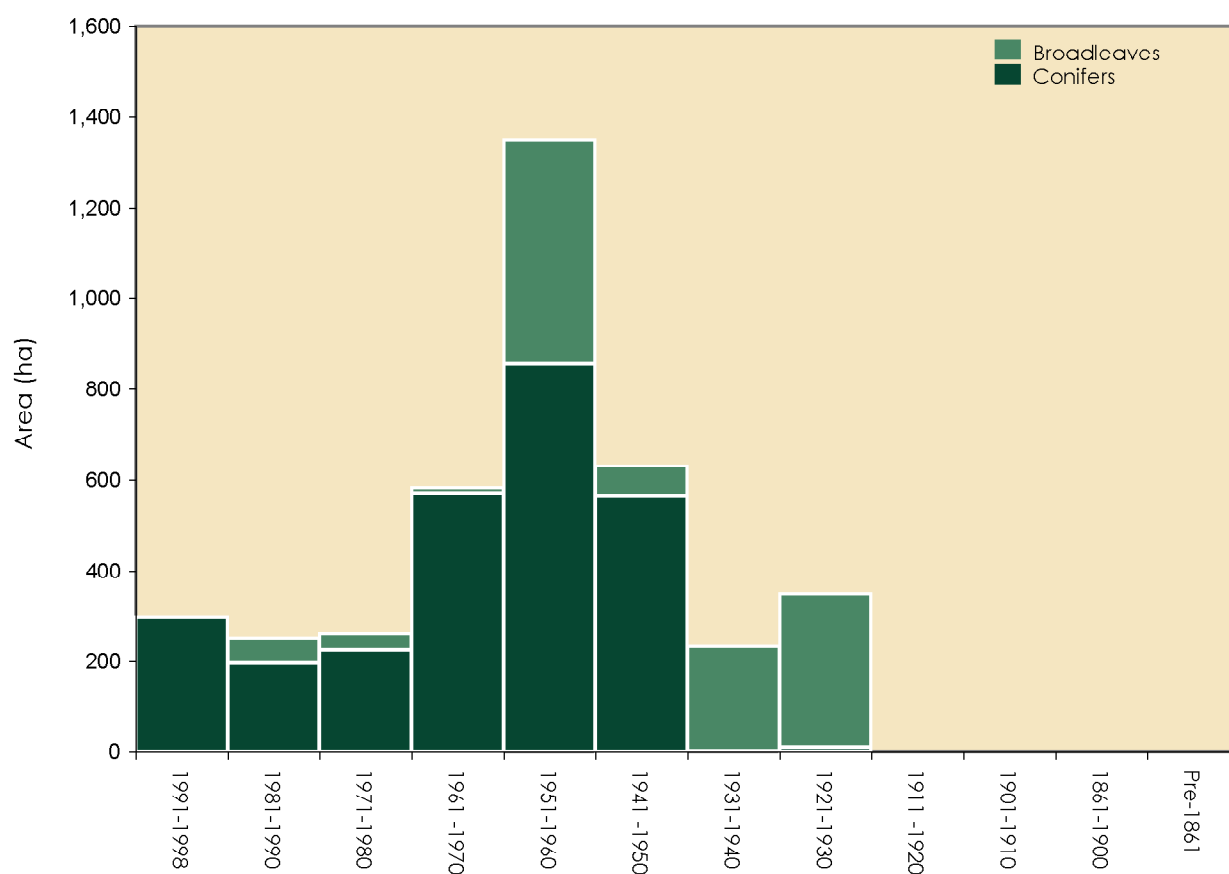
High Forest Category 1 - Area by planting year class

1. Most of the planting year classes cover 10 years, 1991-1998 is 8 years, and the classes prior to 1901 are 40 years or more.

Table 10b High Forest Category 1 - Forestry Commission : area by principal species and planting year classes

Species	Planting year class*												Total (ha)
	1991-1998	1981-1990	1971-1980	1961-1970	1951-1960	1941-1950	1931-1940	1921-1930	1911-1920	1901-1910	1861-1900	Pre-1861	
Scots pine	0	0	0	34	9	261	0	9	0	0	0	0	313
Corsican pine	0	0	0	65	0	0	0	0	0	0	0	0	65
Lodgepole pine	0	0	0	65	0	0	0	0	0	0	0	0	65
Sitka spruce	186	63	0	7	0	224	0	0	0	0	0	0	481
Norway spruce	0	0	0	0	153	0	0	0	0	0	0	0	153
European larch	0	0	0	0	0	6	0	0	0	0	0	0	6
Jap/Hybrid larch	112	0	0	52	242	75	0	0	0	0	0	0	481
Douglas fir	0	76	225	175	149	0	0	0	0	0	0	0	626
Other conifers	0	56	0	171	289	0	0	0	0	0	0	0	516
Mixed conifers	0	0	0	0	13	0	0	0	0	0	0	0	13
Total conifers	298	196	225	570	855	565	0	9	0	0	0	0	2,718
Oak	0	0	0	0	9	0	177	75	0	0	0	0	261
Beech	0	0	0	0	466	0	56	265	0	0	0	0	786
Sycamore	0	0	35	0	0	19	0	0	0	0	0	0	54
Ash	0	0	0	0	0	0	0	0	0	0	0	0	0
Birch	0	54	0	13	0	0	0	0	0	0	0	0	67
Poplar	0	0	0	0	0	0	0	0	0	0	0	0	0
Sweet chestnut	0	0	0	0	0	0	0	0	0	0	0	0	0
Elm	0	0	0	0	0	0	0	0	0	0	0	0	0
Other broadleaves	0	0	0	0	19	0	0	0	0	0	0	0	19
Mixed broadleaves	0	0	0	0	0	47	0	0	0	0	0	0	47
Total broadleaves	0	54	35	13	494	65	233	339	0	0	0	0	1,233
Total - all species	298	250	261	583	1,349	630	233	348	0	0	0	0	3,952

*Age determined from records where these were available. Where records were not available or were clearly inaccurate age-class was assigned by reference to similar crops of known age in the locality.

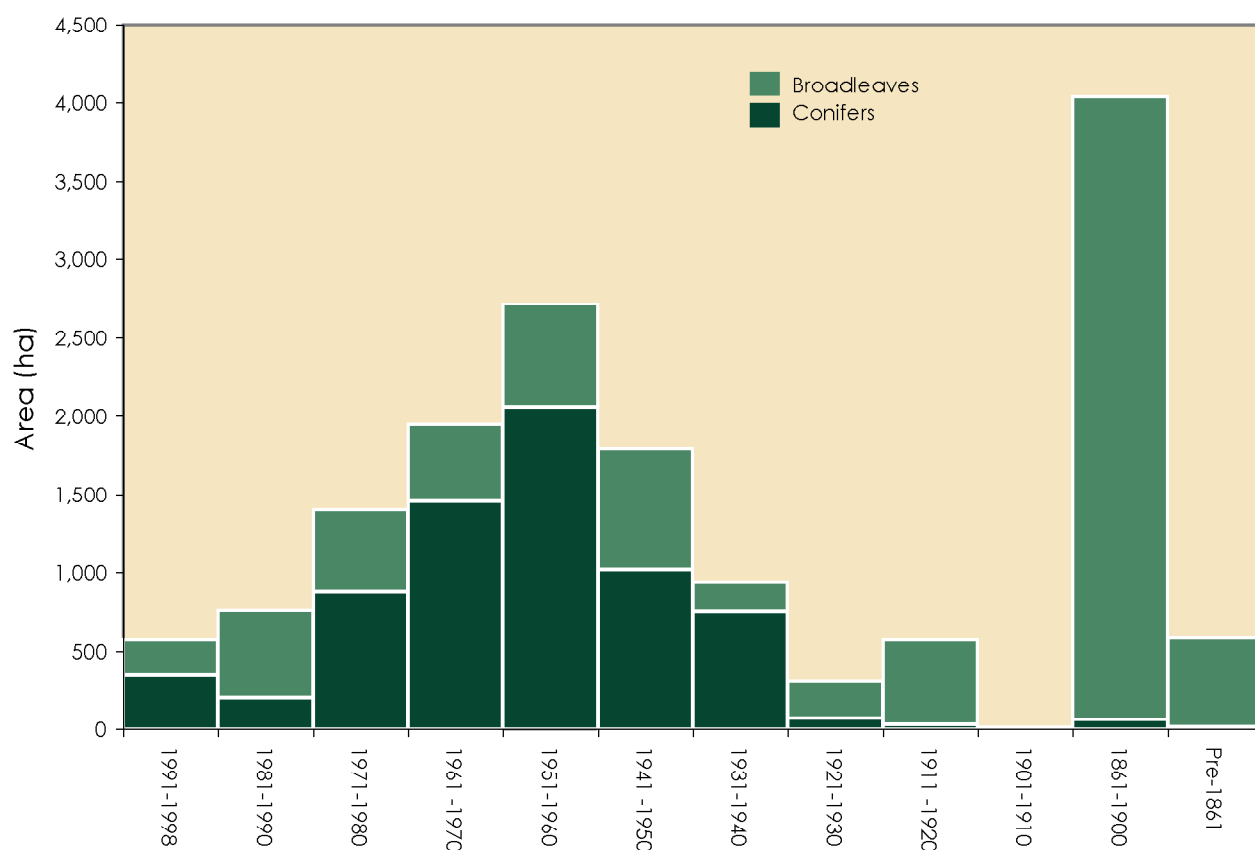
High Forest Category 1 - Forestry Commission: area by planting year class

1. Most of the planting year classes cover 10 years, 1991-1998 is 8 years, and the classes prior to 1901 are 40 years or more.

Table 10c High Forest Category 1 - Other ownership: area by principal species and planting year classes

Species	Planting year class*												Total (ha)
	1991-1998	1981-1990	1971-1980	1961-1970	1951-1960	1941-1950	1931-1940	1921-1930	1911-1920	1901-1910	1861-1900	Pre-1861	
Scots pine	0	57	184	148	301	109	90	23	10	0	23	0	945
Corsican pine	59	0	23	41	65	181	0	0	0	5	19	0	393
Lodgepole pine	0	0	23	62	27	0	0	0	0	0	0	0	112
Sitka spruce	12	0	166	196	377	75	88	0	0	0	0	0	914
Norway spruce	53	87	100	367	300	38	11	0	0	0	0	0	956
European larch	0	7	78	78	183	201	249	20	14	0	5	0	835
Jap/Hybrid larch	141	27	77	24	219	125	204	0	0	0	0	0	816
Douglas fir	62	7	97	339	399	147	101	0	0	0	0	0	1,152
Other conifers	15	10	109	182	123	101	4	22	5	0	0	13	583
Mixed conifers	0	6	21	19	61	42	0	4	0	0	14	0	167
Total conifers	343	200	878	1,457	2,056	1,019	746	69	29	5	61	13	6,875
Oak	75	66	49	56	51	62	11	52	173	0	2,525	494	3,612
Beech	0	19	0	5	26	191	29	26	0	0	298	14	608
Sycamore	0	0	28	40	279	146	48	41	105	0	146	0	834
Ash	31	116	37	93	119	202	70	74	210	7	634	37	1,628
Birch	0	4	155	9	5	38	21	0	0	0	27	0	258
Poplar	84	231	56	181	108	25	18	33	0	0	0	0	736
Sweet chestnut	0	0	0	0	22	0	0	11	0	0	14	23	70
Elm	0	0	0	0	0	0	0	0	0	0	0	0	0
Other broadleaves	5	45	175	77	19	71	0	4	10	0	219	0	625
Mixed broadleaves	34	78	21	28	27	36	0	0	48	0	117	3	391
Total broadleaves	229	558	523	487	656	772	196	239	545	7	3,979	571	8,762
Total - all species	571	758	1,400	1,944	2,711	1,791	943	308	574	11	4,040	585	15,637

*Age determined from records where these were available. Where records were not available or were clearly inaccurate age-class was assigned by reference to similar crops of known age in the locality.

High Forest Category 1 - Other Ownership: area by planting year class

1. Most of the planting year classes cover 10 years, 1991-1998 is 8 years, and the classes prior to 1901 are 40 years or more.

Table 11 High Forest : principal species by planting year class

Planting year class	First	%	Second	%	Third	%
1991-98	Jap/Hybrid larch	28	Sitka spruce	22	Poplar	9
1981-90	Poplar	19	Mixed broadleaves	13	Oak	10
1971-80	Douglas fir	17	Other broadleaves	13	Scots pine	10
1961-70	Douglas fir	18	Norway spruce	13	Other conifers	12
1951-60	Douglas fir	12	Beech	11	Jap/Hybrid larch	10
1941-50	Scots pine	12	Other broadleaves	10	Sitka spruce	9
1931-40	European larch	17	Oak	17	Jap/Hybrid larch	14
1921-30	Beech	33	Ash	17	Oak	14
1911-20	Ash	30	Oak	26	Other broadleaves	16
1901-10	Oak	83	Ash	10	Corsican pine	7
1861-1900	Oak	58	Ash	14	Other broadleaves	11
Pre 1861	Oak	76	Beech	8	Mixed broadleaves	5
All years	Oak	21	Ash	9	Other broadleaves	8

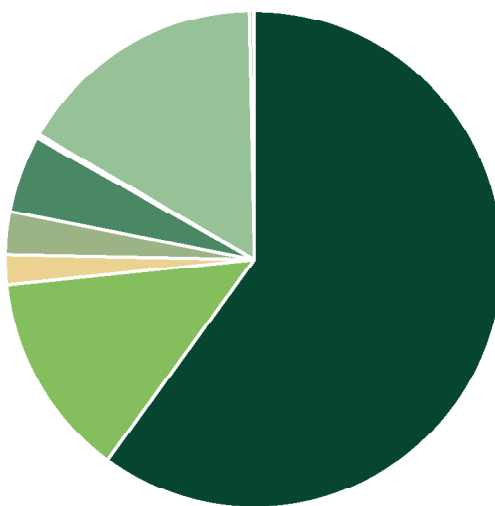
1. Principal species as a percentage of area in the planting year class.

Table 12 Ownership type* by area and percentage

Ownership type	Area (ha)	%
Personal	15,651	59.9
Business	3,529	13.5
Forestry or timber business	520	2.0
Charity	668	2.6
Local Authority	1,374	5.3
Other public (not FC)	37	0.1
Forestry Commission	4,287	16.4
Community ownership or common land	68	0.3
Unidentified	0	0.0
Total	26,135	100.0

* This table is produced from data contributed on a voluntary basis by owners or their representatives.

Ownership type by area



RESULTS FROM THE SURVEY OF SMALL WOODLAND AND TREES (SSWT)

Survey Method

The land area of England was stratified into coastal and inland 1 km x 1 km squares and a random sample of 1 km² plots were then selected, representing around 1% of the land area. 1:25 000 scale aerial photos were then used to identify features in each sample square. Each 1 km² was then divided into 16 parts, and two of these were selected at random for field data collection. Data was collected on Small Woodlands (0.10 - <2.00 ha), Linear Features, Groups and Individual Trees. The survey did not collect information from areas of developed land of 2 hectares or more.

Table 13:	Summary of information from the Survey of Small Woodland and Trees
Table 14:	Woodland area by feature type and woodland size
Table 15:	Numbers of live trees outside woodland by species and feature type
Table 16 :	Numbers of dead trees outside woodland by species and feature type
Table 17:	Numbers of live trees outside woodland by species and height band
Table 18:	Numbers of Groups by group size

Note: The figures in many of the tables may not add due to rounding

Table 13 Summary of information from the Survey of Small Woodlands and Trees

Feature type	Number of features	Total	Unit
Small Woods	7,940	3,048	Area (ha)
Wide Linear Features	854	299	Area (ha)
Wide Linear Features	854	183	Length (Km)
Narrow Linear Features	86,200	6,227	Length (Km)
Narrow Linear Features	86,200	4,119,700	Number of live trees
Groups	145,700	1,011,400	Number of live trees
Individual Trees	165,900	165,900	Number of live trees

1. See Glossary for definitions of feature types.

Table 14 Woodland area by feature type and woodland size

Feature type	Woodland size (ha)		Total area (ha)	Number of features	Mean size (ha)
	0.1 - <0.25	0.25 - <2.0			
Small Woods	533	2,515	3,048	7,940	0.38
Wide Linear Features	0	299	299	854	0.35
Total	533	2,814	3,347	8,794	0.38

1. See Glossary for definitions of feature types.

Table 15 Numbers of live trees outside woodland by species and feature type (000's trees)

Species	Feature type				Total live trees	Percent of total trees	
	Boundary Trees	Middle Trees	Groups	Narrow Linear Features		Category	Species
Pine	0.0	0.8	6.2	3.4	10.4	21.9	0.2
Spruce	0.0	0.0	0.0	30.7	30.7	64.6	0.6
Larch	0.0	0.0	1.6	0.9	2.5	5.3	0.0
Cypress	0.0	0.0	1.6	0.0	1.6	3.4	0.0
Other conifers	0.0	0.0	2.3	0.0	2.3	4.8	0.0
Total conifers	0.0	0.8	11.6	35.0	47.5	100.0	0.9
Oak	36.2	19.7	69.8	146.0	271.7	5.2	5.1
Beech	0.0	0.0	3.9	2.6	6.5	0.1	0.1
Sycamore	3.1	0.8	32.6	63.2	99.7	1.9	1.9
Ash	7.6	2.5	27.1	126.4	163.6	3.1	3.1
Birch	2.4	0.0	20.9	42.7	66.0	1.3	1.2
Poplar	0.0	0.0	7.8	45.3	53.1	1.0	1.0
Sweet chestnut	0.0	3.1	1.6	0.0	4.7	0.1	0.1
Horse chestnut	0.8	0.8	0.0	0.0	1.6	0.0	0.0
Alder	2.0	2.0	27.9	265.5	297.4	5.7	5.6
Lime	0.0	0.0	0.0	0.9	0.9	0.0	0.0
Elm	2.3	0.0	10.1	9.4	21.8	0.4	0.4
Willow	7.8	0.0	70.5	393.6	471.9	9.0	8.9
Other broadleaves	48.0	26.4	727.8	2,989.2	3,791.4	72.2	71.6
Total broadleaves	110.2	55.3	999.8	4,084.7	5,250.3	100.0	99.1
Total - all species	110.2	56.1	1,011.4	4,119.7	5,297.0		100.0

1. Percentages

Category : species percentage of conifer or broadleaved.
Species : percentage of all species.

2. The standard errors of the total tree number estimates for these feature types are:

Individual Trees 15%
Groups 17%
Narrow Linear Features 15%

3. See Glossary for definitions of feature types.

Table 16 Numbers of dead trees outside woodland by species and feature type (000's trees)

Species	Feature type				Total dead trees	Percent of total trees	
	Boundary Trees	Middle Trees	Groups	Narrow Linear Features		Category	Species
Pine	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spruce	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Larch	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cypress	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other conifers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed Conifers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total conifers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oak	0.0	0.8	0.0	1.7	2.5	10.5	10.5
Beech	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sycamore	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ash	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Birch	0.0	0.0	0.8	0.0	0.8	3.4	3.4
Poplar	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sweet chestnut	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Horse chestnut	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alder	0.0	0.0	0.0	0.9	0.9	3.8	3.8
Lime	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elm	0.0	0.0	0.8	0.0	0.8	3.4	3.4
Willow	0.0	0.0	0.0	2.6	2.6	10.9	10.9
Other broadleaves	1.6	0.8	7.0	6.8	16.2	68.1	68.1
Total broadleaves	1.6	1.6	8.5	12.0	23.8	100.0	100.0
Total - all species	1.6	1.6	8.5	12.0	23.8		100.0

1. See Glossary for definitions of feature types.

Table 17 Numbers of live trees outside woodland by species and height band (000's trees)

Species	Height band (m)				Total live trees
	2-5	5-15	15-20	>20	
Pine	4.7	1.6	2.6	1.6	10.5
Spruce	0.0	30.7	0.0	0.0	30.7
Larch	1.6	0.9	0.0	0.0	2.5
Cypress	1.6	0.0	0.0	0.0	1.6
Other conifers	2.3	0.0	0.0	0.0	2.3
Total conifers	10.2	33.2	2.6	1.6	47.6
Oak	36.5	193.2	40.2	1.6	271.5
Beech	4.7	1.7	0.0	0.0	6.4
Sycamore	12.3	81.6	4.9	0.8	99.6
Ash	21.7	114.0	27.1	0.8	163.6
Birch	17.1	48.8	0.0	0.0	65.9
Poplar	0.0	6.2	44.4	2.4	53.0
Sweet chestnut	0.8	0.8	2.3	0.8	4.7
Horse chestnut	0.0	1.6	0.0	0.0	1.6
Alder	37.8	245.0	14.5	0.0	297.3
Lime	0.0	0.9	0.0	0.0	0.9
Elm	9.9	11.9	0.0	0.0	21.8
Willow	225.4	239.7	6.0	0.8	471.9
Other broadleaves	3,038.1	752.4	0.9	0.0	3,791.4
Total broadleaves	3,404.3	1,697.8	140.3	7.2	5,249.6
Total - all species	3,414.6	1,731.0	142.9	8.6	5,297.0

Table 18 Number of Groups by group size

Number of trees per Group*	Number of Groups (000's)
2	23
3-5	57
6-10	27
11-20	20
21-50	15
51-100	2
>100	2
Total	146

*The size of the group is determined by the total number of trees, live plus dead.

COMPARISON OF RESULTS WITH THE 1980 CENSUS AND PREVIOUS SURVEYS

Survey Method

The 1980 Census and 1998 Inventory were undertaken using very different sampling methods.

Inventory practice and technology have moved on since the 1980 Census; this has led to changes in sampling methodology, scope and woodland definitions were required. For example, the Main Woodland Survey used the digital woodland map, created from aerial photos as a basis for sampling whereas the 1980 Census relied only on the woodland shown on the 1:50,000 Ordnance Survey map. Also in contrast to the 1980 Census, the Survey of Small Woodland and Trees did not record information within developed land e.g. residential or industrial areas of 2 or more hectares.

Where possible adjustments have been made to both the 1980 Census and the Inventory to achieve the nearest available comparison. The apparent changes indicated in the following tables and charts should therefore be treated with caution, particularly where areas are small.

Table 19:	Comparison of woodland area between 1980 Census and 1998 Inventory
Table 20:	Comparison of High Forest area by species between 1980 Census and 1998 Inventory
Chart:	Comparison of High Forest area by species between 1980 Census and 1998 Inventory
Table 21:	Comparison of High Forest Category 1 area by planting year class between 1980 Census and 1998 Inventory
Chart:	Comparison of High Forest Category 1 area by planting year class between 1980 Census and 1998 Inventory
Table 22:	Comparison of numbers of live trees outside woodland between 1980 Census and 1998 Inventory
Table 23:	Comparison of density of non-woodland features between 1980 Census and 1998 Inventory

Woodland cover

Chart	Change in woodland cover through time (1890 – 2000)
Maps:	Woodland by county through time (1895 – 1998)

Note: The figures in many of the tables may not add due to rounding

Table 19 Comparison of woodland area between 1980 Census and 1998 Inventory

Woodland size (ha)	1980 Census woodland area		1998 Inventory woodland area		Change (%)
	(ha)	(%)	(ha)	(%)	(%)
2.0 or more	22,951	90.8	26,135	90.3	14
0.25 - <2.0	2,324	9.2	2,814	9.7	21
Total	25,275		28,949		15
% Woodland land cover	7.2		8.3		

1. Differences in sampling methodology may account for some of the apparent differences.
2. The above figures from the 1998 Inventory exclude woodland between 0.1 and <0.25 ha, thereby matching the scope of the 1980 Census. The 1998 figures above will therefore not match those in the previous sections of the report.
3. Land area used to calculate woodland cover percent (1998), 348,767 ha, was based on the 1991 Census of Population digital boundaries.
4. Land area used to calculate woodland cover percent (1980), 349,014ha, (Ordnance Survey data)

Table 20 Comparison of High Forest area by species between 1980 Census and 1998 Inventory

Species	1980 Census woodland area (ha)	1998 Inventory woodland area (ha)	Change (%)
Scots pine	1,445	1,282	-11
Corsican pine	337	459	36
Lodgepole pine	504	177	-65
Sitka spruce	1,155	1,409	22
Norway spruce	1,246	1,171	-6
European larch	1,303	841	-35
Jap/Hybrid larch	1,439	1,297	-10
Douglas fir	1,515	1,778	17
Other conifers	578	1,135	97
Mixed conifers	1,342	195	-85
Total conifers	10,863	9,744	-10
Oak	4,050	5,517	36
Beech	627	1,624	159
Sycamore	848	1,150	36
Ash	1,514	2,471	63
Birch	1,783	968	-46
Poplar	337	1,029	205
Sweet chestnut	334	145	-57
Elm	62	82	31
Other broadleaves	1,477	3,090	109
Mixed broadleaves	1,812	1,827	1
Total broadleaves	12,844	17,903	39
Total all species	23,707	27,647	17
Felled	509	83	-84
Total High Forest	24,216	27,730	15

1. Differences in sampling methodology may account for some of the apparent differences.
2. In the 1980 Census the areas assigned to species included any associated open space such as roads and rides. In the Inventory open spaces are separately identified and the overall proportion is 3.9% (Table 2). To obtain meaningful comparisons between the two datasets the 1980 Census data have therefore been reduced by 3.9%.
3. The above figures from the 1998 Inventory exclude woodland between 0.1 and <0.25 ha, thereby matching the scope of the 1980 Census. The 1998 figures above will therefore not match those in the previous sections of the report.
4. The 1980 figures include scrub to enable comparison

Comparison of High Forest area by species between 1980 Census and 1998 Inventory

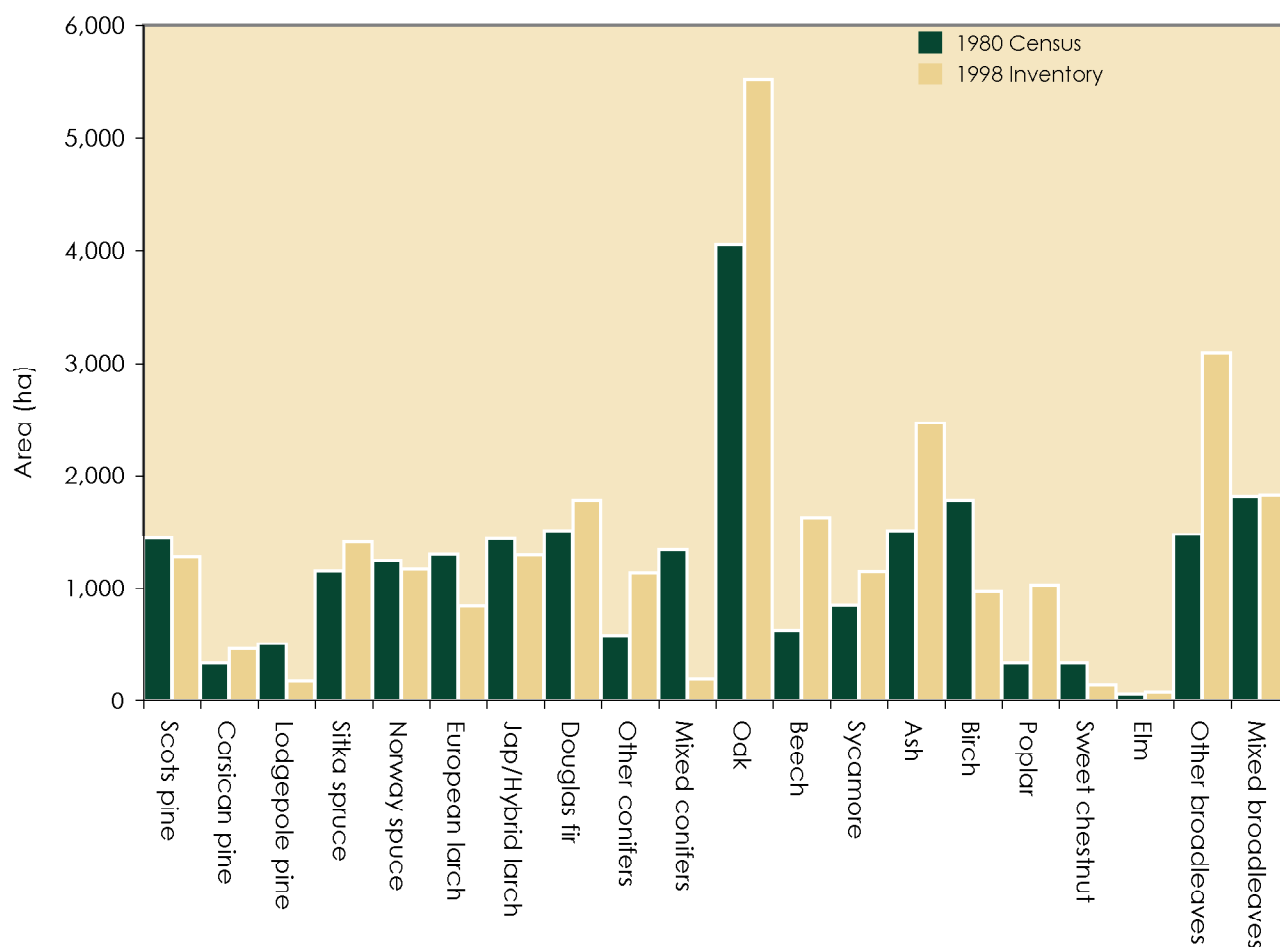


Table 21 Comparison of High Forest Category 1 area by planting year class
between 1980 Census and 1998 Inventory

Planting year class	1980 Census woodland area (ha)	1998 Inventory woodland area (ha)	Change (%)
1991-1998	0	1,465	see note
1981-1990	0	1,107	see note
1971-1980	1,418	1,723	21
1961-1970	3,752	2,527	-33
1951-1960	4,749	4,457	-6
1941-1950	2,913	2,464	-15
1931-1940	2,432	1,263	-48
1921-1930	1,627	656	-60
1911-1920	1,245	591	-53
1901-1910	1,288	12	-99
1861-1900	2,590	4,281	65
Pre 1861	681	584	-14
Total all years	22,696	21,130	-7

1. The first two classes, 1991-1998 and 1981-1990, cover the period since the 1980 Census and no comparison is therefore available.
2. The definition of High Forest Category 1 in the Inventory does not fully coincide with High Forest as defined in the 1980 Census.

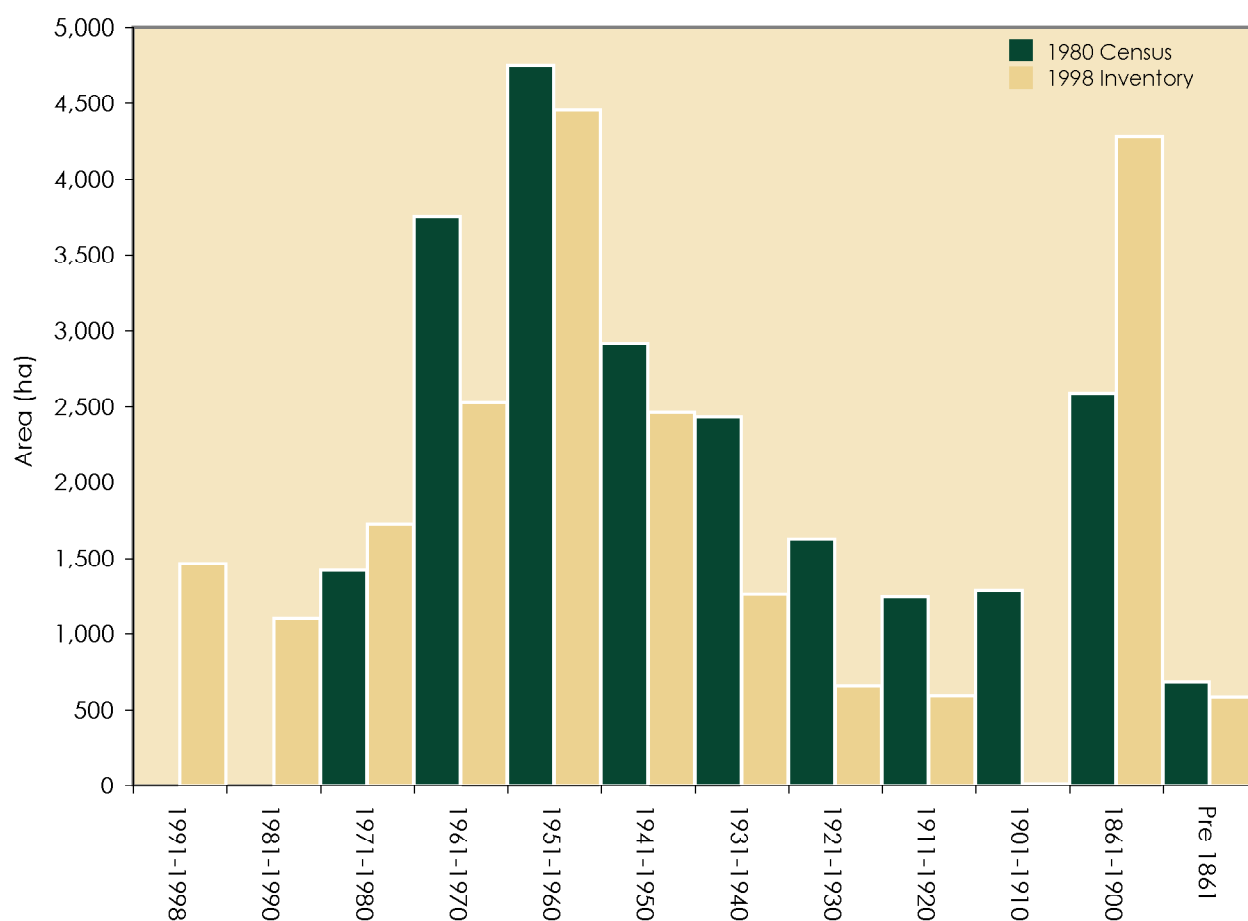
Comparison of High Forest Category 1 area by planting year class between 1980 Census and 1998 Inventory

Table 22 Comparison of numbers of live trees outside woodland
between 1980 Census and 1998 Inventory (000's)

Feature type	1980 Census	1998 Inventory	Change (%)
Boundary Tree	250	93	-63
Middle Tree	119	38	-68
Total Individual Trees	369	132	-64
Groups	542	376	-31
Linear Features	1,082	1,543	43
Total	1,993	2,051	3

1. The Survey of Small Woodland and Trees did not record information referring to tree features (I.e. Individual trees, Groups and Narrow Linear Features) within developed land.
2. In the 1980 Census hazel, hawthorn, blackthorn and goat willow were excluded, the 1998 Inventory figures have been adjusted accordingly.
The 1998 figures above will therefore not match those in the previous sections of the report.
3. Changes stated in this table are indicative only. Even with adjustments to the 1998 Inventory, the two surveys are not directly comparable - 1980 used 7cm diameter at breast height, and 1998 used 2m height, as minimum criteria for inclusion.
4. See Glossary for definitions of feature type.

Table 23 Comparison of density of non-woodland features between 1980
Census and 1998 Inventory

Feature type	1980 Census	1998 Inventory	Change (%)
Individual Trees (per sq km)	105.8	37.8	-64
Groups (per sq km)	24.6	25.3	3
Linear Features (m per sq km)	561.6	1,724.0	207

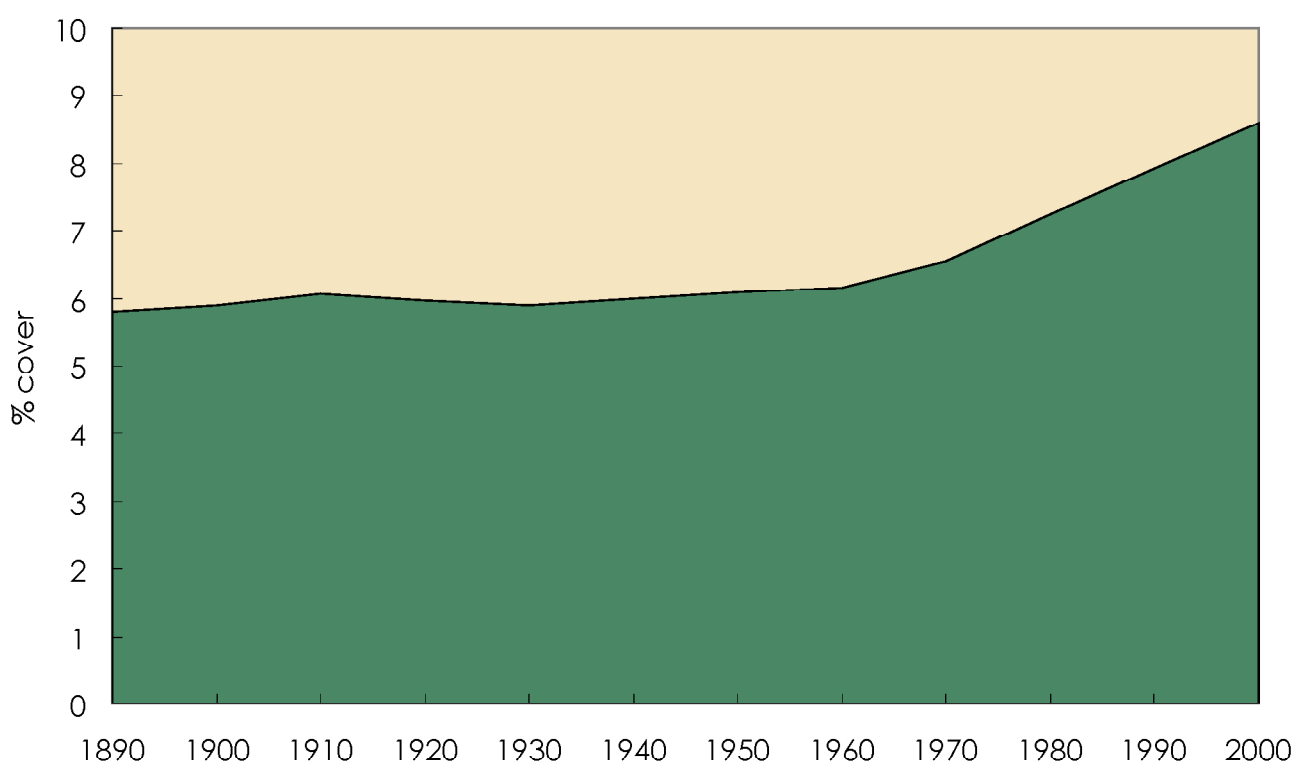
1. The Survey of Small Woodland and Trees did not record information referring to tree features (I.e. Individual trees, Groups and Narrow Linear Features) within developed land.
2. In the 1980 Census hazel, hawthorn, blackthorn and goat willow were excluded, the 1998 Inventory figures have been adjusted accordingly.
The 1998 figures above will therefore not match those in the previous sections of the report.
3. Changes stated in this table are indicative only. Even with adjustments to the 1998 Inventory, the two surveys are not directly comparable - 1980 used 7cm diameter at breast height, and 1998 used 2m height, as minimum criteria for inclusion.
4. See Glossary for definitions of feature type.

WOODLAND COVER

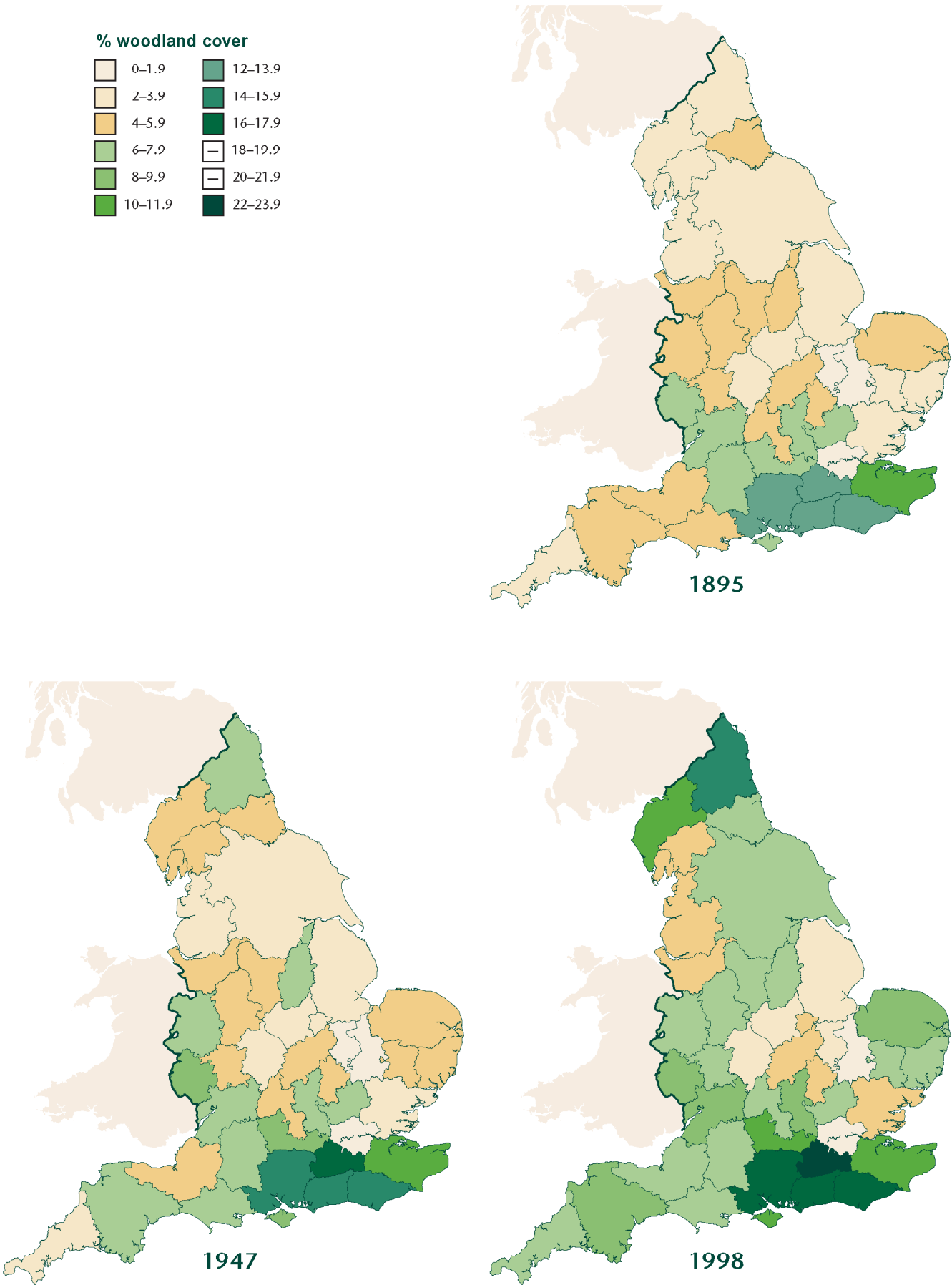
Woodland area data is available from Ministry of Agriculture surveys since 1871, and from Forestry Commission national woodland inventories since 1924. The following chart and maps show the changes in woodland area through time.

The maps use the old County structure data of England, as reported on in 1895 and 1947. The data from these counties could not be re-worked for different geographic areas. In contrast, the digital woodland map, which forms the basis of the current inventory, can be analysed for any geographic area.

Change in county woodland cover through time (1890 – 2000)



Map 5 Woodland Cover in England by County through time (1895–1998)



GLOSSARY

Woodland

In the United Kingdom woodland is defined as land with a minimum area of 0.1 ha under stands of trees with, or the potential to achieve, tree crown cover of more than 20%. Areas of open space integral to the woodland are also included. Orchards and urban woodland between 0.1 and 2 ha are excluded. Intervening land-classes such as roads, rivers or pipelines are disregarded if less than 50m in extent. 'Scrubby' vegetation is not included as a separate category but as Conifer, Broadleaved or Mixed tree types. There is additional information on the quality of woodland within the inventory database.

Woodland of 2 ha and over, and with a minimum width of 50m, is included in the Main Woodland Survey; other woodland and trees are assessed in the Survey of Small Woodland and Trees.

Interpreted Forest Types

The woodland map derived from aerial photographs is differentiated into Interpreted Forest Types (IFTs) which are: Conifer, Broadleaved, Mixed, Coppice, Coppice-with-Standards, Shrubs, Young Trees, Ground Prepared for Planting and Felled. Note that forest types (see below) based on ground survey data are used for reporting purposes because they are more reliable.

High Forest

All woodland except stands managed as Coppice or Coppice-with-Standards with, or with the potential to achieve a tree cover of more than 20%. Two categories of High Forest are recognised:

- **High Forest Category 1**
Stands which are, or could become, capable of producing wood of a size and quality suitable for sawlogs.
- **High Forest Category 2**
Stands of lower quality than High Forest Category 1.

Mixtures

Where possible the species in mixtures have been separately recorded. Where this has not been possible they were described as 'Mixed conifers' or 'Mixed broadleaves'.

Forest Types

- **Conifer**
Woodland containing more than 80% by area of coniferous species.
- **Broadleaved**
Woodland containing more than 80% by area of broadleaved species.
- **Mixed**
A combination of broadleaved and coniferous species where each category occupies at least 20% of the canopy (see note on mixtures above.)

- **Coppice**

Crops of marketable broadleaved species that have at least 2 stems per stool and are either being worked or are capable of being worked on rotation. With the exception of hazel coppice more than half the stems should be capable of producing 1m timber lengths of good form.

- **Coppice with Standards**

Two-storey stands where the overstorey consists of at least 25 stems per ha that are older than the understorey of worked coppice by at least one coppice rotation.

- **Felled**

Woodland areas that have been felled or stands where the stocking has been reduced to less than 20% and where it is expected that these areas will be replanted.

- **Windblow**

Areas of blown woodland which remain uncleared and not regenerated.

- **Open Space**

Areas within a woodland that are not covered by trees but are integral to the woodland such as open areas, streamsides, deer glades, rides and forest roads.

Ownership types

- **Other Ownership**

Woodland other than that owned by, or leased to, the Forestry Commission

- **Personal**

types of private occupation, e.g. individuals, private family trusts and family partnerships.

- **Private forestry or timber business**

owned by wood processing industry. This category does not include forest management companies.

- **Other private business**

occupiers, e.g. companies, partnerships, syndicates and pension funds.

- **Local Authority**

Region, County, District or other Council

- **Other public bodies (not FC)**

Government department/agency, nationalised industry, etc.

- **Charitable organisations**

organisations funded by voluntary public subscription, e.g. National Trust, churches and colleges.

- Community ownership or common land

the common property of all members of the community.

- **Forestry Commission**

Land owned by or land leased to the Forestry Commission

Feature types

- **Small Wood**

A woodland with an area of 0.1 ha or over but less than 2 ha.

- **Group**

A group containing two or more trees with an area less than 0.1 ha.

- **Individual Tree**

A tree the crown of which has no contact with any other tree crown and which is at least 2m tall. Two types of individual tree are recognised:

- Boundary Tree (an Individual Tree on any boundary)
- Middle Tree (an Individual Tree not on a boundary)

- **Linear Feature**

A feature with a length of 25 m or more, and one which is at least four times as long as it is broad. It can be up to 50m wide or as narrow as a single line of trees. Two types of Linear Features are recognised:

- Narrow Linear Features (with a width of 1.6 m or less)
- Wide Linear Features (with a width greater than 1.6 m)

NOTES



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