



# **NATIONAL INVENTORY OF WOODLAND AND TREES**



## **ENGLAND**

### **Regional Report for LONDON**



**Forestry Commission**



Forestry Commission

**Inventory Report**

# **NATIONAL INVENTORY OF WOODLAND AND TREES**



## **ENGLAND**

**Regional Report for  
LONDON**

Forestry Commission, Edinburgh

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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 London Region was carried out by Graham Bull, Woodland Survey Officer, and Woodland GIS Officers Chris Brown, Robert Beck and Esther Whitton. Data processing and analysis were carried out by Woodland Data Officers Justin Gilbert and Shona Mackintosh.

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 London Region 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 With the statistics becoming increasingly out of date the Forestry Commission decided to undertake a new survey: the *National Inventory of Woodland and Trees*.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 London Region, 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 5 and 6 show: overall woodland cover; and woodland by Interpreted Forest Type, respectively. The total area of woodland in London Region 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:

- 2.0 ha – <100 ha : every fifth wood
- 100 ha – <500 ha : two woods in five
- 500 ha 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 had 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 London Region was stratified into coastal and inland 1 km x 1 km squares. A random sample of the 1 km<sup>2</sup> plots was 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 km<sup>2</sup> was then divided into 16 parts, and two of these were selected at random for field data collection. Data was collected on Small Woods (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 London Region is 6 204 hectares. This represents 3.9% of the land area (Table 1).
- Broadleaved woodland is the dominant forest type representing 86.3% of all woodland. Conifer woodland represents 0.2%, Mixed woodland 3.7% and Open Space within woodlands 5.8% (Table 2).
- The main conifer is pine covering 69 hectares or 44.5% of all conifer species. The main broadleaved species is oak covering 1 712 hectares or 33.1% of all broadleaved species species (Table 3).
- There are 621 woods over 2 hectares within London Region with a mean wood area of 9.6 hectares (Table 7a). There are a total of 592 woods from 0.1 – <2.0 hectares with a mean wood area of 0.5 hectares (Table 14).
- There are 129 thousand live trees and outside woodland in London Region (Tables 17).
- Woodland land cover increased by over 172 hectares from 3.8% to 3.9% of the land area between 1980 and 1995 (Table 23).
- The area of Broadleaves increased by 2% between 1980 and 1995, with the relative proportion of Broadleaves to Conifers increasing from 94.9% to 97.2% (Table 24).

## INVENTORY REPORTS

In addition to the Inventory Reports for England and the English Regions, further information is available by county (not applicable for London Region). Country and county reports for Wales, and country and region reports for Scotland are also available.

# NOTE ON THE REPORT FOR LONDON REGION

## Woodland ownership

At the time of the survey, there was no Forestry Commission woodland in London Region. The format of this Report has therefore been adjusted slightly (when compared with the other English regional reports). Maps 2 and 3 have been combined as distribution of woodland over 2 hectares by ownership is not relevant. Tables 10b, 10c and their associated charts have been omitted for the same reason.

## 'Non-woodland' trees and features

In the 1980 Census, the assessment of 'non-woodland trees and features' included those in developed areas, whereas the Survey of Small Woodland and Trees did not. Therefore comparisons of tree numbers, as presented in Tables 26 and 27 for other regions, are less relevant for London, and have been omitted.

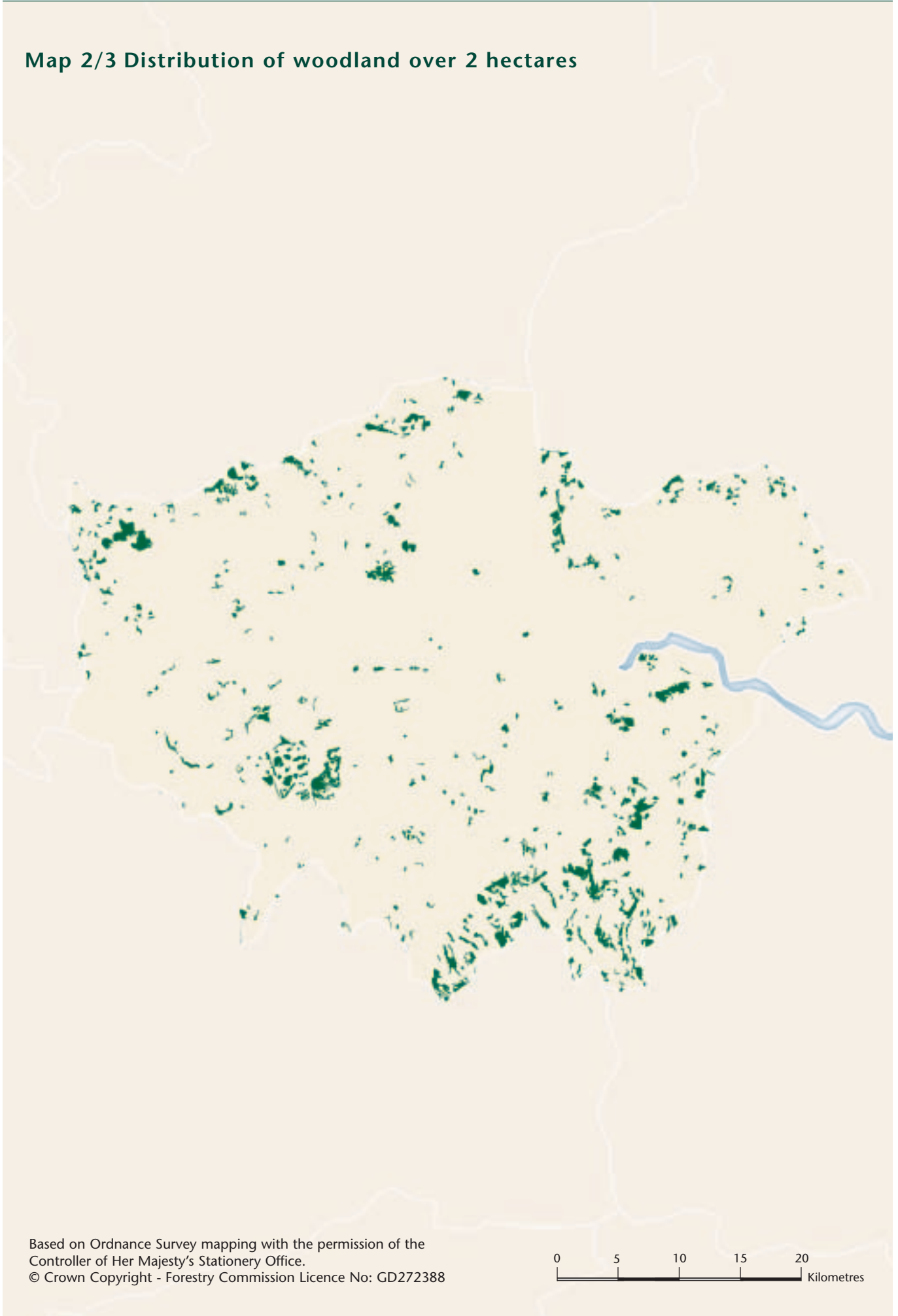
## Appendix 1–4

Appendix 1–4 (which summarise county level data in the rest of the English regional reports) are not applicable to London Region, and have been omitted.

**Map 1 Regional and (adjoining) county boundaries**

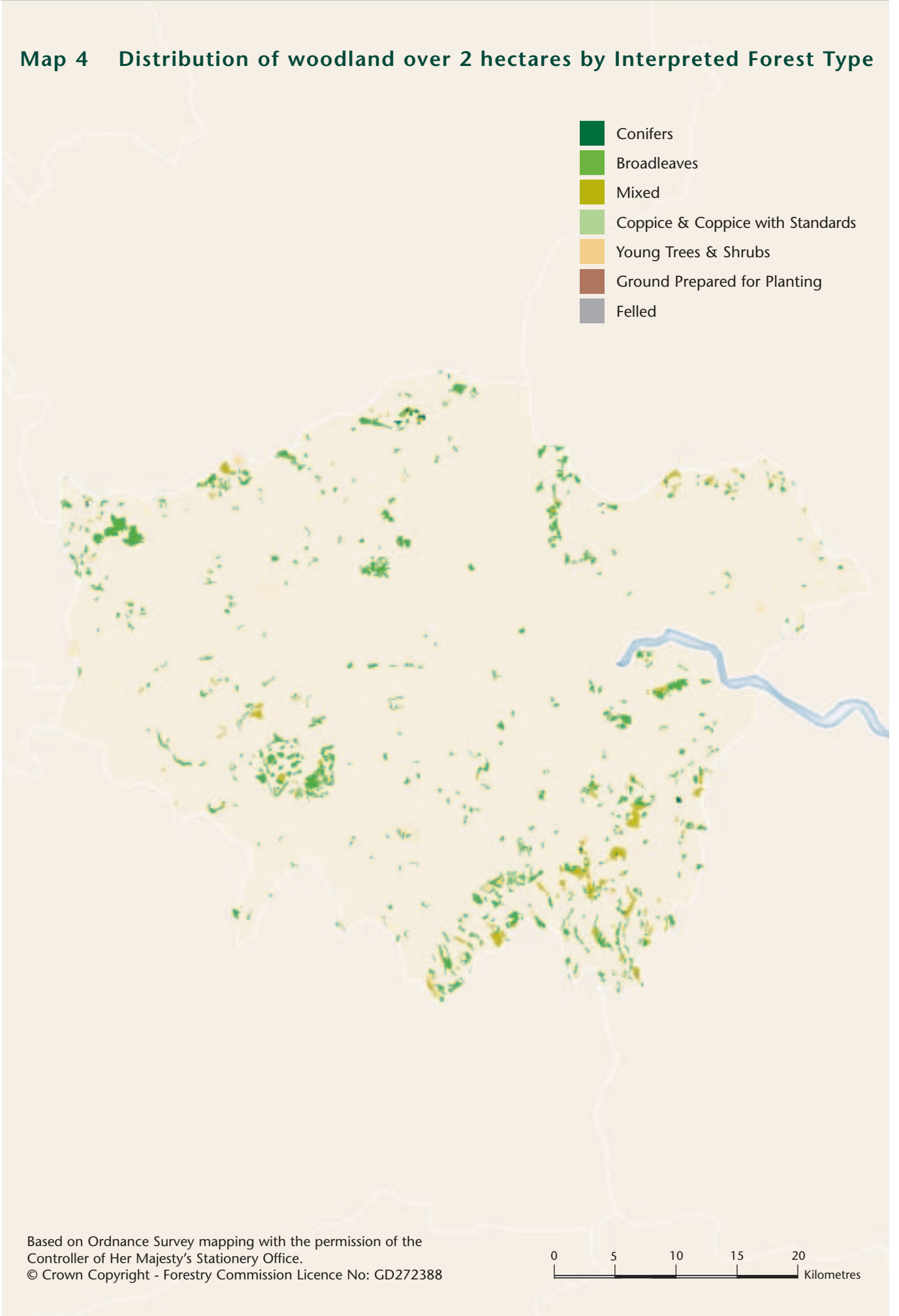


## Map 2/3 Distribution of woodland over 2 hectares

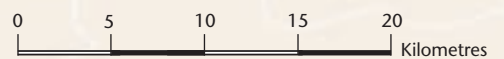


### Map 4 Distribution of woodland over 2 hectares by Interpreted Forest Type

- Conifers
- Broadleaves
- Mixed
- Coppice & Coppice with Standards
- Young Trees & Shrubs
- Ground Prepared for Planting
- Felled



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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 London Region.

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)	% Woodland area
2.00 and over	5 908	95.2
0.25 – < 2.00	296	4.8
0.10 – < 0.25	0	0.0
<b>Total area of woodland</b>	<b>6 204</b>	<b>100.0</b>
<b>% Woodland land cover</b>	<b>3.9</b>	

1. Area of London Region, including inland water, 157 916 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	15	0	15	0.2
Broadleaved	5 061	296	5 357	86.3
Mixed	232	0	232	3.7
Coppiced	53	0	53	0.9
Copp-w-Standards	140	0	140	2.3
Windblow	20	0	20	0.3
Felled	29	0	29	0.5
Open Space	357	0	357	5.8
<b>Total</b>	<b>5 908</b>	<b>296</b>	<b>6 204</b>	<b>100.0</b>

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	69	0	69	44.5	1.2
Sitka spruce	0	0	0	0.0	0.0
Larch	4	0	4	2.6	0.1
Other conifers	57	0	57	36.8	1.0
Mixed conifers	26	0	26	16.8	0.5
<b>Total conifers</b>	<b>155</b>	<b>0</b>	<b>155</b>	<b>100.0</b>	<b>2.8</b>
Oak	1 712	0	1 712	31.3	30.4
Beech	356	0	356	6.5	6.3
Sycamore	361	0	361	6.6	6.4
Ash	715	0	715	13.1	12.7
Birch	556	0	556	10.2	9.9
Elm	11	0	11	0.2	0.2
Other broadleaves	777	0	777	14.2	13.8
Mixed broadleaves	685	296	981	17.9	17.4
<b>Total broadleaves</b>	<b>5 173</b>	<b>296</b>	<b>5 469</b>	<b>100.0</b>	<b>97.2</b>
<b>Total all species†</b>	<b>5 329</b>	<b>296</b>	<b>5 624</b>		<b>100.0</b>

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

\*\* Species - species/group percentage of all species.

† Excludes the 579 ha of Coppice, Felled and Open Space areas, which were included in Table 2.

1. The standard errors of the total area estimates for the most common species or species groups are as follows:

Conifers	29%
Broadleaves	6%
Pine	59%
Oak	9%
Ash	16%

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	6 300	32 400	5	21
Narrow Linear Features	1 500	70 600	47	45
Individual Trees	26 000	26 000	1	16
<b>Total</b>		<b>129 000</b>		<b>82</b>

1. Land area used to calculate tree density 157 916 ha 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	47%
Narrow Linear Features	48%
Individual Trees	44%
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	0	0	0
Narrow Linear Features	1 500	222	141
<b>Total</b>		<b>222</b>	<b>141</b>

1. Land area used to calculate feature density 157 916 ha 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	-
Narrow Linear Features	48%
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.

## 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 the sample plots was reduced as the sampled woodlands increased in size, the general aim being to sample 1% of 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
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 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	0	0
Other	5 908	100
<b>Total area of woodland</b>	<b>5 908</b>	<b>100</b>

1. Woodland area from aerial photographic interpretation map updated to 31 March 1995.
2. See Glossary for definitions of ownership types.

**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	413	1 765	30	4.3
10 – <20	68	970	16	14.3
20 – <50	49	1 419	24	29.0
50 – <100	15	975	16	65.0
<100	545	5 119	86	9.4
100 – <500	6	813	14	135.5
500 and >	0	0	0	0.0
<b>All woods</b>	<b>621</b>	<b>5 942</b>	<b>100</b>	<b>9.6</b>

**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	0	0	0	0.0
	O	413	1 765	30	4.3
10 – <20	FC	0	0	0	0.0
	O	68	970	16	14.3
20 – <50	FC	0	0	0	0.0
	O	49	1 419	24	29.0
50 – <100	FC	0	0	0	0.0
	O	15	975	16	65.0
<100	FC	0	0	0	0.0
	O	545	5 119	86	9.4
100 – <500	FC	0	0	0	0.0
	O	6	813	14	135.5
500 and >	FC	0	0	0	0.0
	O	0	0	0	0.0
<b>Total</b>	<b>FC</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
	<b>O</b>	<b>621</b>	<b>5 942</b>	<b>100</b>	<b>9.6</b>

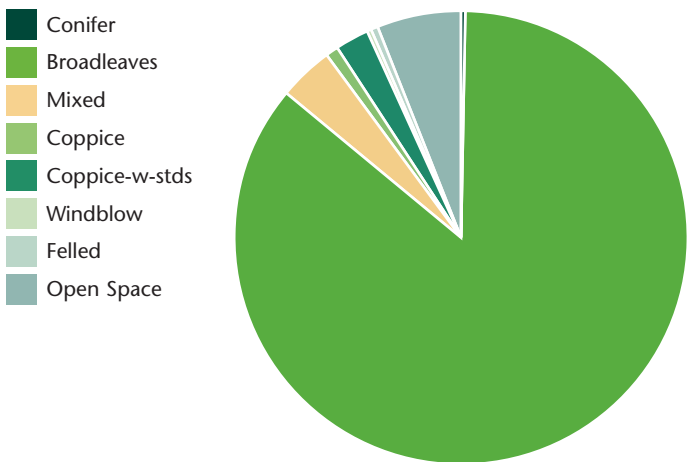
1. Tables 7a and 7b are based solely on the digital woodland map. The other MWS tables are derived from the field sample data.
2. The total area in Tables 7a and 7b is 34 hectares more than that recorded in Tables 1 and 3. This is mainly due to the field samples recording some land in other land uses 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	0	0.0	15	0.3	15	0.3
Broadleaved	0	0.0	5 061	85.7	5 061	85.7
Mixed	0	0.0	232	3.9	232	3.9
Coppice	0	0.0	53	0.9	53	0.9
Copp-w-stds	0	0.0	140	2.4	140	2.4
Windblow	0	0.0	20	0.3	20	0.3
Felled	0	0.0	29	0.5	29	0.5
Open Space	0	0.0	357	6.0	357	6.0
<b>Total</b>	<b>0</b>	<b>0.0</b>	<b>5 908</b>	<b>100.0</b>	<b>5 908</b>	<b>100.0</b>

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	0	0	0	66	43	1	66	43	1
Corsican pine	0	0	0	3	2	0	3	2	0
Lodgepole pine	0	0	0	0	0	0	0	0	0
Sitka spruce	0	0	0	0	0	0	0	0	0
Norway spruce	0	0	0	4	3	0	4	3	0
European larch	0	0	0	4	3	0	4	3	0
Japanese/hybrid larch	0	0	0	0	0	0	0	0	0
Douglas fir	0	0	0	0	0	0	0	0	0
Other conifers	0	0	0	53	34	1	53	34	1
Mixed conifers	0	0	0	26	17	0	26	17	0
<b>Total conifers</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>155</b>	<b>100</b>	<b>3</b>	<b>155</b>	<b>100</b>	<b>3</b>
Oak	0	0	0	1 712	33	32	1 712	33	32
Beech	0	0	0	356	7	7	356	7	7
Sycamore	0	0	0	361	7	7	361	7	7
Ash	0	0	0	715	14	13	715	14	13
Birch	0	0	0	556	11	10	556	11	10
Poplar	0	0	0	36	1	1	36	1	1
Sweet chestnut	0	0	0	204	4	4	204	4	4
Elm	0	0	0	11	0	0	11	0	0
Other broadleaves	0	0	0	537	10	10	537	10	10
Mixed broadleaves	0	0	0	685	13	13	685	13	13
<b>Total broadleaves</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5 173</b>	<b>100</b>	<b>97</b>	<b>5 173</b>	<b>100</b>	<b>97</b>
<b>Total – all species</b>	<b>0</b>		<b>0</b>	<b>5 329</b>		<b>100</b>	<b>5 329</b>		<b>100</b>
<b>Felled</b>	<b>0</b>			<b>29</b>			<b>29</b>		
<b>Total High Forest</b>	<b>0</b>			<b>5 358</b>			<b>5 358</b>		

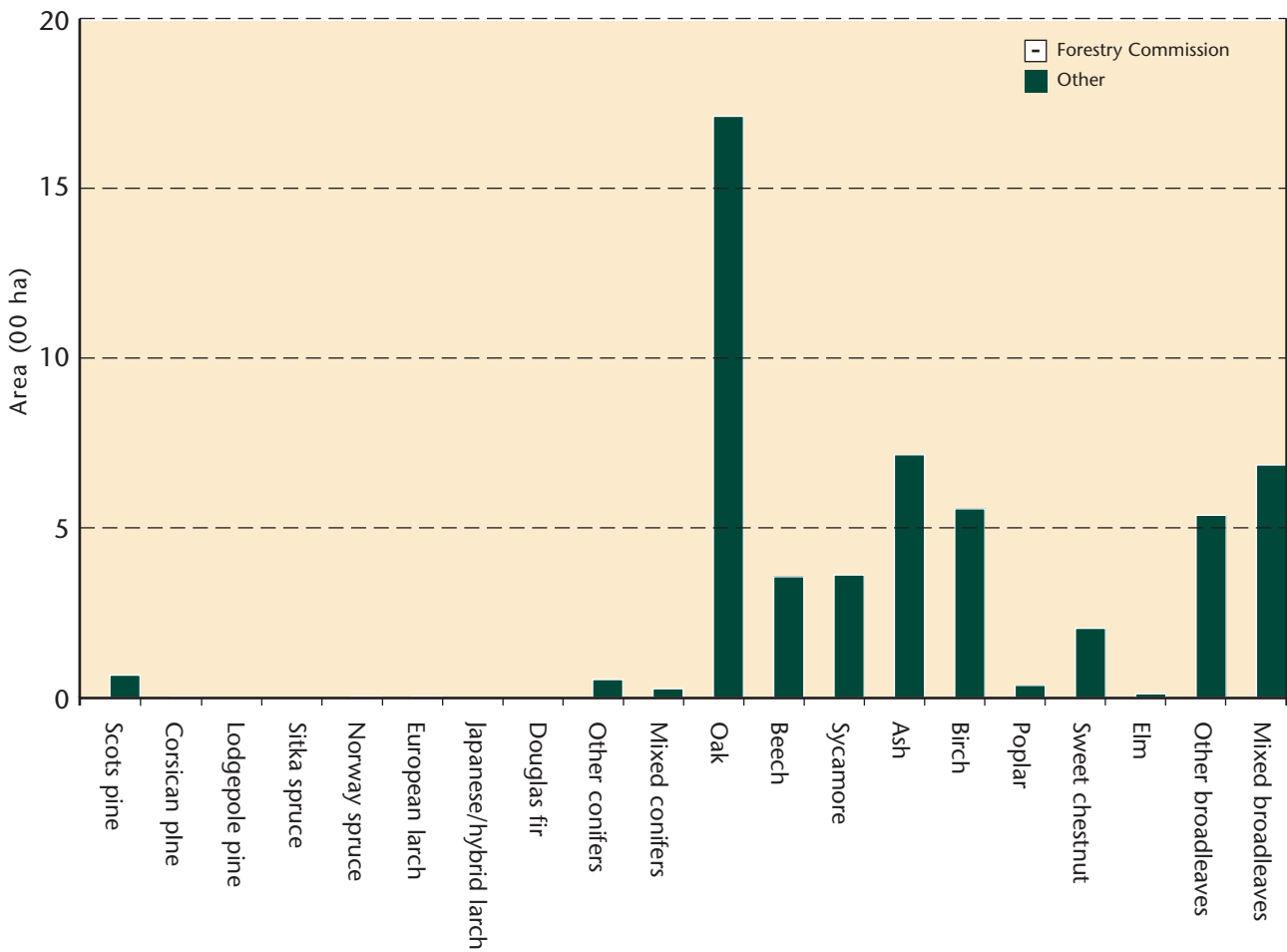
\*cat : species percentage of Conifer or Broadleaved in the ownership category.

†spp : percentage of all species in the ownership category.

1. In addition to the areas shown there are 357 hectares 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	29%
Broadleaves	4%
Oak	9%
Ash	16%
Mixed broadleaves	16%
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	0	0	0	66	0	66	66	0	66
Corsican pine	0	0	0	3	0	3	3	0	3
Lodgepole pine	0	0	0	0	0	0	0	0	0
Sitka spruce	0	0	0	0	0	0	0	0	0
Norway spruce	0	0	0	4	0	4	4	0	4
European larch	0	0	0	4	0	4	4	0	4
Japanese/hybrid larch	0	0	0	0	0	0	0	0	0
Douglas fir	0	0	0	0	0	0	0	0	0
Other conifers	0	0	0	34	20	53	34	20	53
Mixed conifers	0	0	0	26	0	26	26	0	26
<b>Total conifers</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>20</b>	<b>155</b>	<b>135</b>	<b>20</b>	<b>155</b>
Oak	0	0	0	1 700	12	1 712	1 700	12	1 712
Beech	0	0	0	356	0	356	356	0	356
Sycamore	0	0	0	361	0	361	361	0	361
Ash	0	0	0	663	52	715	663	52	715
Birch	0	0	0	520	36	556	520	36	556
Poplar	0	0	0	36	0	36	36	0	36
Sweet chestnut	0	0	0	204	0	204	204	0	204
Elm	0	0	0	0	11	11	0	11	11
Other broadleaves	0	0	0	393	144	537	393	144	537
Mixed broadleaves	0	0	0	511	175	685	511	175	685
<b>Total broadleaves</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4 743</b>	<b>430</b>	<b>5 173</b>	<b>4 743</b>	<b>430</b>	<b>5 173</b>
<b>Total – all species</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4 879</b>	<b>450</b>	<b>5 329</b>	<b>4 879</b>	<b>450</b>	<b>5 329</b>

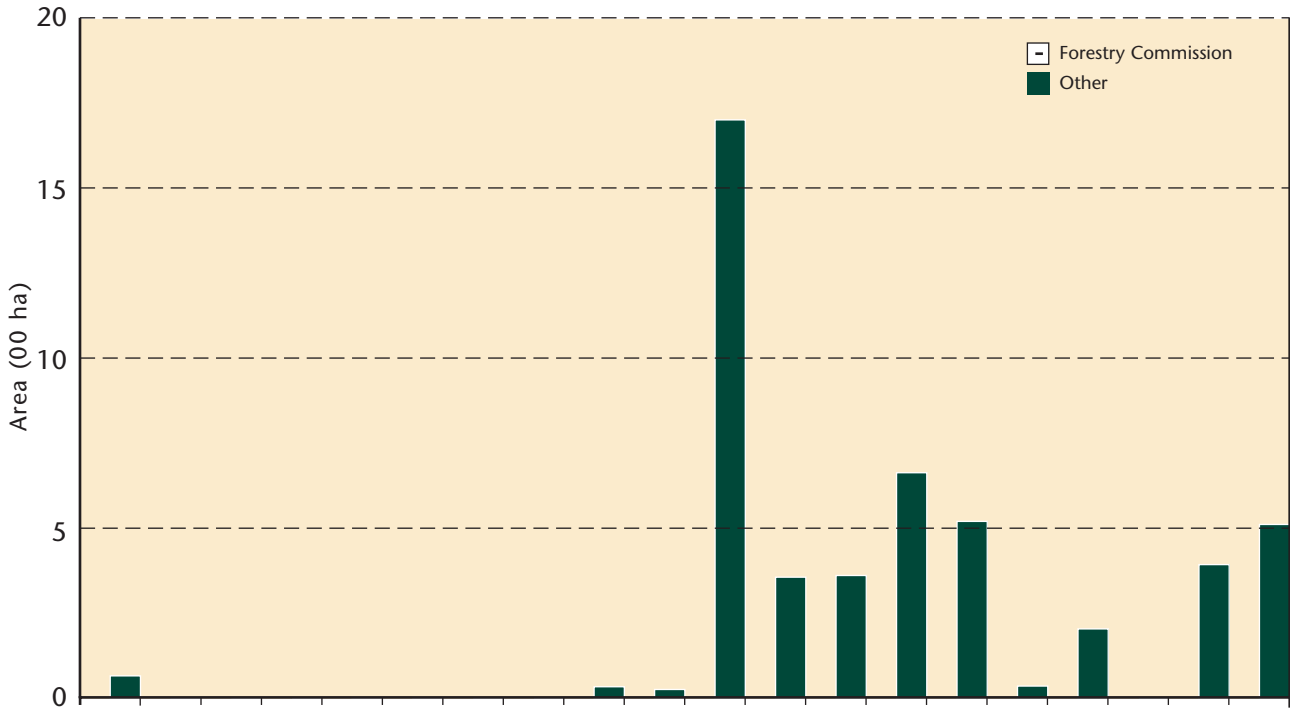
1. The standard errors of the All ownerships area estimates for the most common species or species groups (in all woodland types) are as follows:

	Category 1*	Category 2*	Total High Forest
Conifers	32%	76%	29%
Broadleaves	4%	16%	4%
Oak	9%	72%	9%
Ash	16%	67%	16%
Mixed broadleaves	18%	37%	16%

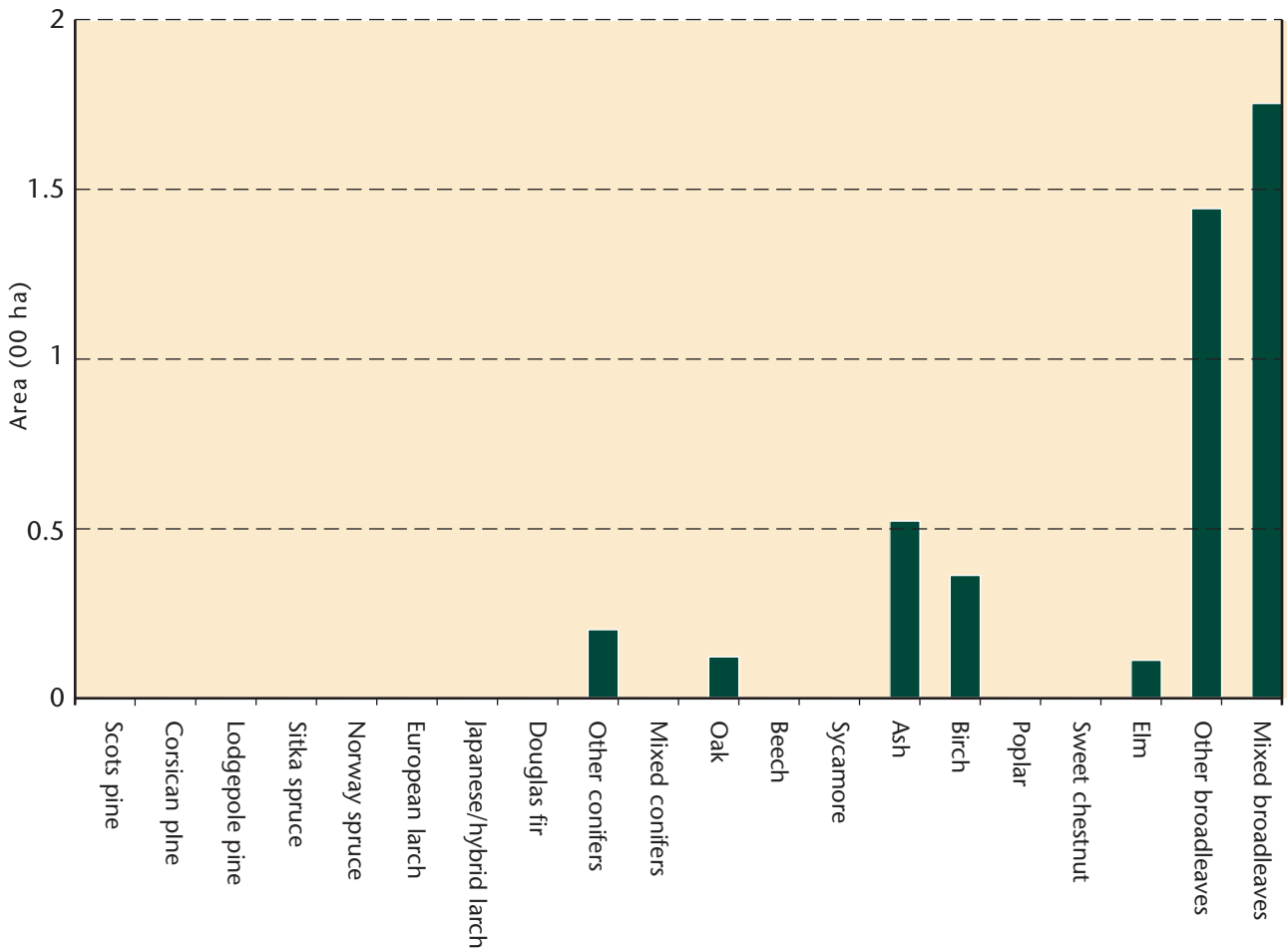
\*See Glossary for Category 1 and Category 2 descriptions.

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

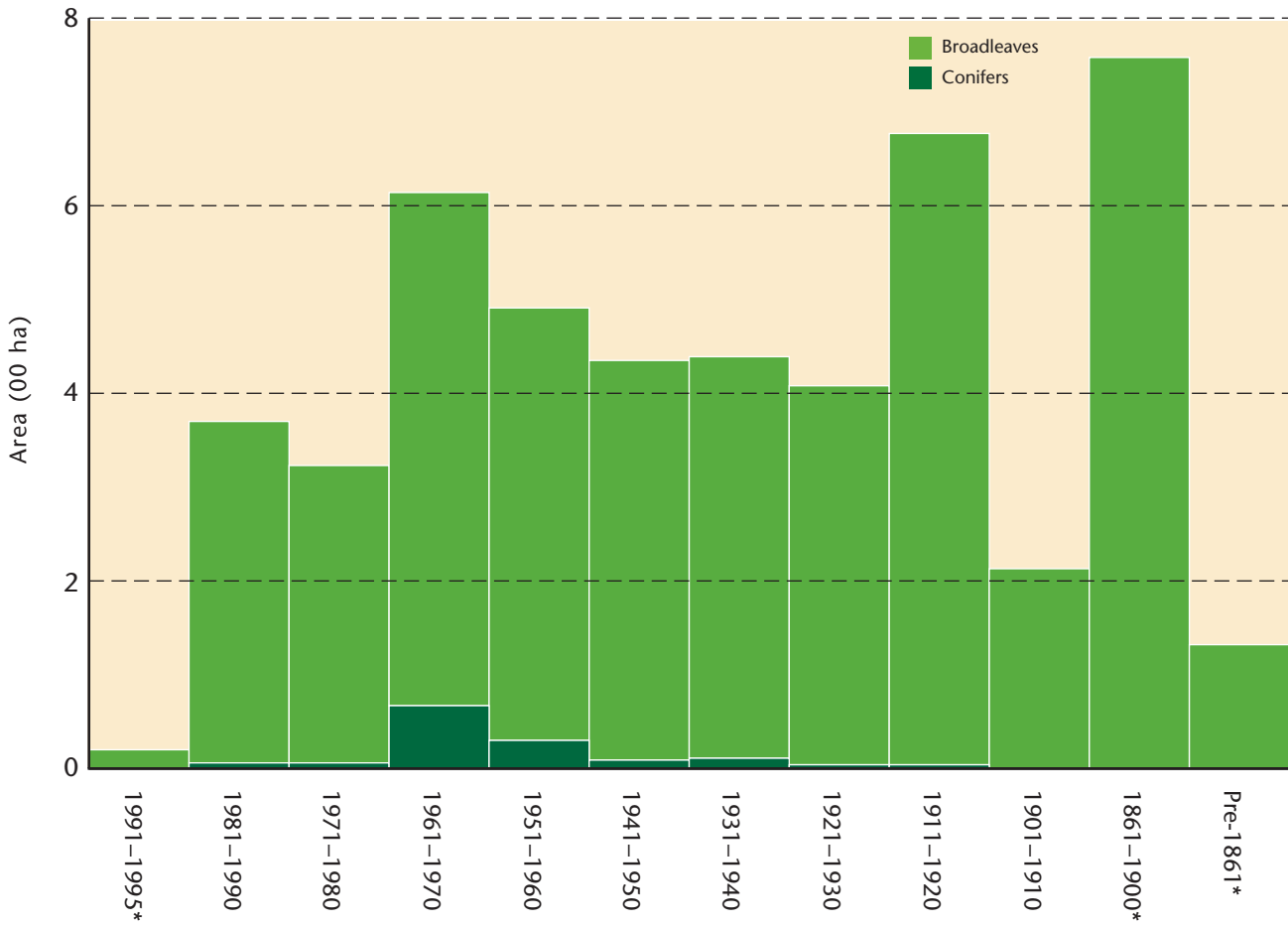


**Table 10a** High Forest Category 1 - Area by principal species and planting year class

Species	Planting year class*												Total (ha)
	1991 -1995	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	44	11	0	11	0	0	0	0	0	66
Corsican pine	0	3	0	0	0	0	0	0	0	0	0	0	3
Lodgepole pine	0	0	0	0	0	0	0	0	0	0	0	0	0
Sitka spruce	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway spruce	0	0	4	0	0	0	0	0	0	0	0	0	4
European larch	0	0	0	0	0	0	0	0	4	0	0	0	4
Japanese/hybrid larch	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas fir	0	0	0	0	0	0	0	0	0	0	0	0	0
Other conifers	0	0	2	7	16	9	0	0	0	0	0	0	34
Mixed conifers	0	4	0	16	3	0	0	4	0	0	0	0	26
<b>Total conifers</b>	<b>0</b>	<b>6</b>	<b>6</b>	<b>67</b>	<b>30</b>	<b>9</b>	<b>11</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>135</b>
Oak	0	3	26	51	68	144	180	112	416	108	519	72	1 700
Beech	0	0	0	37	16	16	2	83	97	14	63	28	356
Sycamore	0	0	71	123	59	52	21	19	0	6	0	11	361
Ash	0	34	55	59	169	70	103	73	33	36	31	0	663
Birch	0	178	73	150	76	31	10	0	0	0	0	0	520
Poplar	0	11	0	0	11	14	0	0	0	0	0	0	36
Sweet chestnut	0	0	8	4	7	24	31	73	0	0	58	0	204
Elm	0	0	0	0	0	0	0	0	0	0	0	0	0
Other broadleaves	0	3	33	75	9	37	41	12	66	25	72	21	393
Mixed broadleaves	20	135	51	49	46	38	39	31	61	25	15	0	511
<b>Total broadleaves</b>	<b>20</b>	<b>364</b>	<b>317</b>	<b>547</b>	<b>461</b>	<b>426</b>	<b>428</b>	<b>404</b>	<b>673</b>	<b>213</b>	<b>758</b>	<b>132</b>	<b>4 743</b>
<b>Total – all species</b>	<b>20</b>	<b>371</b>	<b>322</b>	<b>614</b>	<b>491</b>	<b>435</b>	<b>439</b>	<b>407</b>	<b>677</b>	<b>213</b>	<b>758</b>	<b>132</b>	<b>4 879</b>

\*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



\*Most of the planting year classes cover 10 years, 1991-1995 is 5 years, and the classes prior to 1901 are 40 years or more.

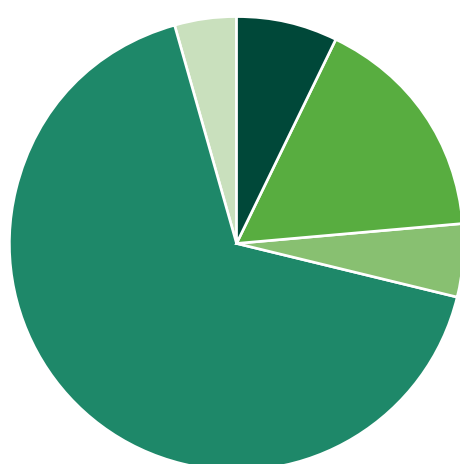
**Table 11** High Forest: principal species by planting year class

Planting year class	First	%	Second	%	Third	%
1991–1995	Mixed broadleaves	57	Birch	43	-	
1981–1990	Mixed broadleaves	47	Birch	40	Ash	8
1971–1980	Mixed broadleaves	24	Birch	21	Ash	19
1961–1970	Birch	21	Other broadleaves	19	Sycamore	17
1951–1960	Ash	36	Oak/Birch*	14	Sycamore	11
1941–1950	Oak	31	Ash	15	Other broadleaves	13
1931–1940	Oak	41	Ash	23	Other broadleaves	9
1921–1930	Oak	28	Beech	20	Ash/Sweet chestnut**	18
1911–1920	Oak	58	Other broadleaves	15	Beech	14
1901–1910	Oak	51	Ash	17	Mixed broadleaves	12
1861–1900	Oak	68	Other broadleaves	10	Beech	8
Pre-1861	Oak	47	Beech	18	Other broadleaves	14
<b>All years</b>	<b>Oak</b>	<b>32</b>	<b>Ash</b>	<b>13</b>	<b>Mixed broadleaves</b>	<b>13</b>

\*In period 1951–60 both Oak and Birch occupy equal areas, each amounting to 14%

\*\*In period 1921–1930 Ash and Sweet chestnut occupy equal areas, each amounting to 18%

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

**Ownership type by area**

**Table 12** Ownership type\* by area and percentage

Ownership type	Area (ha)	%
Personal	428	7.2
Business	968	16.4
Forestry or timber business	0	0.0
Charity	305	5.2
Local Authority	3 948	66.8
Other public (not FC)	0	0.0
Forestry Commission	0	0.0
Community ownership or common land	259	4.4
Unidentified	0	0.0
<b>Total</b>	<b>5 908</b>	<b>100.0</b>

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

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

### Survey method

The land area of London Region was stratified into coastal and inland 1 km x 1 km squares. A random sample of the 1 km<sup>2</sup> plots was 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 km<sup>2</sup> was then divided into 16 parts, and two of these were selected at random for field data collection. Data was collected on Small Woods (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:	Woodland area by forest type, woodland size and feature type
Table 16:	Woodland area by species and feature type
Table 17:	Numbers of live trees outside woodland by species and feature type
Table 18:	Numbers of dead trees outside woodland by species and feature type
Table 19:	Numbers of live Individual Trees by species and height band
Table 20:	Numbers of live trees in Groups by species and height band
Table 21:	Numbers of live trees in Narrow Linear Features by species and height band
Table 22:	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 Woodland and Trees**

Feature type	Number of features	Total	Unit
Small Woods	592	296	Area (ha)
Wide Linear Features	0	0	Area (ha)
Wide Linear Features	0	0	Length (km)
Narrow Linear Features	1 500	222	Length (km)
Narrow Linear Features	1 500	70 600	Number of live trees
Groups	6 300	32 400	Number of live trees
Individual Trees	26 000	26 000	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	0	296	296	592	0.50
Wide Linear Features	0	0	0	0	0.00
<b>Total</b>	<b>0</b>	<b>296</b>	<b>296</b>	<b>592</b>	<b>0.50</b>

1. The standard errors of the total area estimates for these feature types are:

Small Woods                      97%  
 Wide Linear Features            -

2. See Glossary for definitions of feature types.

**Table 15 Woodland area by forest type, woodland size and feature type**

Forest type	Woodland size class (ha)						Total area (ha) SW + WLF
	0.1 – <0.25		0.25 – <2.0		0.1 – <2.0		
	SW*	WLF†	SW	WLF	SW	WLF	
Conifer	0	0	0	0	0	0	0
Broadleaved	0	0	296	0	296	0	296
Mixed	0	0	0	0	0	0	0
Coppiced	0	0	0	0	0	0	0
Copp-w-stds	0	0	0	0	0	0	0
Windblow	0	0	0	0	0	0	0
Felled	0	0	0	0	0	0	0
Open Space	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>296</b>	<b>0</b>	<b>296</b>	<b>0</b>	<b>296</b>

\*SW - Small Woods, †WLF - Wide Linear Features.

1. See Glossary for definitions of forest type and feature type.

**Table 16** Woodland area by species and feature type

Species	Feature type		Total area (ha)	Percent of total area	
	Small Wood	Wide Linear Feature		Category	Species
Pine	0	0	0	0.0	0.0
Spruce	0	0	0	0.0	0.0
Larch	0	0	0	0.0	0.0
Cypress	0	0	0	0.0	0.0
Other conifers	0	0	0	0.0	0.0
Mixed conifers	0	0	0	0.0	0.0
<b>Total conifers</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>
Oak	0	0	0	0.0	0.0
Beech	0	0	0	0.0	0.0
Sycamore	0	0	0	0.0	0.0
Ash	0	0	0	0.0	0.0
Birch	0	0	0	0.0	0.0
Poplar	0	0	0	0.0	0.0
Sweet chestnut	0	0	0	0.0	0.0
Horse chestnut	0	0	0	0.0	0.0
Alder	0	0	0	0.0	0.0
Lime	0	0	0	0.0	0.0
Elm	0	0	0	0.0	0.0
Willow	0	0	0	0.0	0.0
Other broadleaves	0	0	0	0.0	0.0
Mixed broadleaves	296	0	296	100.0	100.0
<b>Total broadleaves</b>	<b>296</b>	<b>0</b>	<b>296</b>	<b>100.0</b>	<b>100.0</b>
<b>Total – all species</b>	<b>296</b>	<b>0</b>	<b>296</b>		<b>100.0</b>

1. Percentages:

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

2. The standard errors of the total area estimates for the most common species/groups are:

Mixed broadleaves 97%

3. See Glossary for definitions of feature types.

**Table 17** Numbers of live trees outside woodland by species and feature type (000s trees)

Species	Feature type				Total live trees	Percent of total trees	
	Boundary Trees	Middle Trees	Groups	Narrow Linear Features		Category	Species
Pine	0.0	0.0	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
<b>Total conifers</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Oak	4.7	3.9	9.5	9.9	28.0	21.7	21.7
Beech	0.0	1.6	4.7	0.0	6.3	4.9	4.9
Sycamore	0.8	0.0	0.0	0.0	0.8	0.6	0.6
Ash	0.8	0.0	0.8	5.0	6.6	5.1	5.1
Birch	0.0	0.0	2.4	0.0	2.4	1.9	1.9
Poplar	0.0	0.0	0.0	8.4	8.4	6.5	6.5
Sweet chestnut	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Horse chestnut	0.0	0.8	0.0	13.4	14.2	11.0	11.0
Alder	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lime	0.0	0.8	0.0	0.0	0.8	0.6	0.6
Elm	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Willow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other broadleaves	5.5	7.1	15.0	34.0	61.6	47.8	47.8
<b>Total broadleaves</b>	<b>11.8</b>	<b>14.2</b>	<b>32.4</b>	<b>70.6</b>	<b>129.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total – all species</b>	<b>11.8</b>	<b>14.2</b>	<b>32.4</b>	<b>70.6</b>	<b>129.0</b>		<b>100.0</b>

- Percentages:  
 Category: species percentage of conifer or broadleaved  
 Species: percentage of all species
- The standard errors of the total tree number estimates for these feature types are:  
 Individual Trees                      44%  
 Groups                                      47%  
 Narrow Linear Features                48%
- See Glossary for definitions of feature types.

**Table 18** Numbers of dead trees outside woodland by species and feature type (000s of trees)

At the date of survey, no dead trees were recorded within the field sample plots.

**Table 19** Numbers of live Individual Trees by species and height band (000s trees)

Species	Height band (m)				Total live trees
	2-5	5-15	15-20	>20	
Pine	0.0	0.0	0.0	0.0	0.0
Spruce	0.0	0.0	0.0	0.0	0.0
Larch	0.0	0.0	0.0	0.0	0.0
Cypress	0.0	0.0	0.0	0.0	0.0
Other Conifers	0.0	0.0	0.0	0.0	0.0
<b>Total conifers</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Oak	3.9	4.7	0.0	0.0	8.6
Beech	1.6	0.0	0.0	0.0	1.6
Sycamore	0.0	0.8	0.0	0.0	0.8
Ash	0.0	0.8	0.0	0.0	0.8
Birch	0.0	0.0	0.0	0.0	0.0
Poplar	0.0	0.0	0.0	0.0	0.0
Sweet chestnut	0.0	0.0	0.0	0.0	0.0
Horse chestnut	0.8	0.0	0.0	0.0	0.8
Alder	0.0	0.0	0.0	0.0	0.0
Lime	0.0	0.8	0.0	0.0	0.8
Elm	0.0	0.0	0.0	0.0	0.0
Willow	0.0	0.0	0.0	0.0	0.0
Other broadleaves	3.9	7.1	1.6	0.0	12.6
<b>Total broadleaves</b>	<b>10.3</b>	<b>14.2</b>	<b>1.6</b>	<b>0.0</b>	<b>26.0</b>
<b>Total – all species</b>	<b>10.3</b>	<b>14.2</b>	<b>1.6</b>	<b>0.0</b>	<b>26.0</b>

**Table 20** Numbers of live trees in Groups by species and height band (000s trees)

Species	Height band (m)				Total live trees
	2-5	5-15	15-20	>20	
Pine	0.0	0.0	0.0	0.0	0.0
Spruce	0.0	0.0	0.0	0.0	0.0
Larch	0.0	0.0	0.0	0.0	0.0
Cypress	0.0	0.0	0.0	0.0	0.0
Other conifers	0.0	0.0	0.0	0.0	0.0
<b>Total conifers</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Oak	2.4	7.1	0.0	0.0	9.5
Beech	0.0	4.7	0.0	0.0	4.7
Sycamore	0.0	0.0	0.0	0.0	0.0
Ash	0.0	0.8	0.0	0.0	0.8
Birch	0.0	2.4	0.0	0.0	2.4
Poplar	0.0	0.0	0.0	0.0	0.0
Sweet chestnut	0.0	0.0	0.0	0.0	0.0
Horse chestnut	0.0	0.0	0.0	0.0	0.0
Alder	0.0	0.0	0.0	0.0	0.0
Lime	0.0	0.0	0.0	0.0	0.0
Elm	0.0	0.0	0.0	0.0	0.0
Willow	0.0	0.0	0.0	0.0	0.0
Other broadleaves	6.3	2.4	6.3	0.0	15.0
<b>Total broadleaves</b>	<b>8.7</b>	<b>17.4</b>	<b>6.3</b>	<b>0.0</b>	<b>32.4</b>
<b>Total – all species</b>	<b>8.7</b>	<b>17.4</b>	<b>6.3</b>	<b>0.0</b>	<b>32.4</b>

**Table 21** Numbers of live trees in Narrow Linear Features by species and height band (000s trees)

Species	Height band (m)				Total live trees
	2-5	5-15	15-20	>20	
Pine	0.0	0.0	0.0	0.0	0.0
Spruce	0.0	0.0	0.0	0.0	0.0
Larch	0.0	0.0	0.0	0.0	0.0
Cypress	0.0	0.0	0.0	0.0	0.0
Other conifers	0.0	0.0	0.0	0.0	0.0
<b>Total conifers</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Oak	0.0	9.9	0.0	0.0	9.9
Beech	0.0	0.0	0.0	0.0	0.0
Sycamore	0.0	0.0	0.0	0.0	0.0
Ash	0.0	5.0	0.0	0.0	5.0
Birch	0.0	0.0	0.0	0.0	0.0
Poplar	0.0	8.4	0.0	0.0	8.4
Sweet chestnut	0.0	0.0	0.0	0.0	0.0
Horse chestnut	0.0	13.4	0.0	0.0	13.4
Alder	0.0	0.0	0.0	0.0	0.0
Lime	0.0	0.0	0.0	0.0	0.0
Elm	0.0	0.0	0.0	0.0	0.0
Willow	0.0	0.0	0.0	0.0	0.0
Other broadleaves	16.8	8.0	9.2	0.0	34.0
<b>Total broadleaves</b>	<b>16.8</b>	<b>44.7</b>	<b>9.2</b>	<b>0.0</b>	<b>70.6</b>
<b>Total – all species</b>	<b>16.8</b>	<b>44.7</b>	<b>9.2</b>	<b>0.0</b>	<b>70.6</b>



**Table 22** Number of Groups by group size

Number of trees per Group*	Number of Groups (000s)
2	1
3-5	2
6-10	3
11-20	1
21-50	0
51-100	0
>100	0
<b>Total</b>	<b>6</b>

\*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 1995 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. For example, the Main Woodland Survey used the digital woodland map, created from aerial photographs 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 23:	Comparison of woodland area between 1980 Census and 1995 Inventory
Table 24:	Comparison of High Forest area by species between 1980 Census and 1995 Inventory
Chart:	Comparison of High Forest area by species between 1980 Census and 1995 Inventory
Table 25:	Comparison of High Forest Category 1 area by planting year class between 1980 Census and 1995 Inventory
Chart:	Comparison of High Forest Category 1 area by planting year class between 1980 Census and 1995 Inventory
Table 26:	Comparison of numbers of live trees outside woodland between 1980 Census and 1995 Inventory
Table 27:	Comparison of density of non-woodland features between 1980 Census and 1995 Inventory

### Woodland Cover

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

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



**Table 23** Comparison of woodland area between 1980 Census and 1995 Inventory

Woodland size (ha)	1980 Census woodland area		1995 Inventory woodland area		Change (%)
	(ha)	(%)	(ha)	(%)	(%)
2.0 or more	5 341	88.5	5 908	95.2	11
0.25 – <2.0	691	11.5	296	4.8	-57
<b>Total</b>	<b>6 032</b>		<b>6 204</b>		<b>3</b>
<b>% Woodland land cover</b>	<b>3.8</b>		<b>3.9</b>		

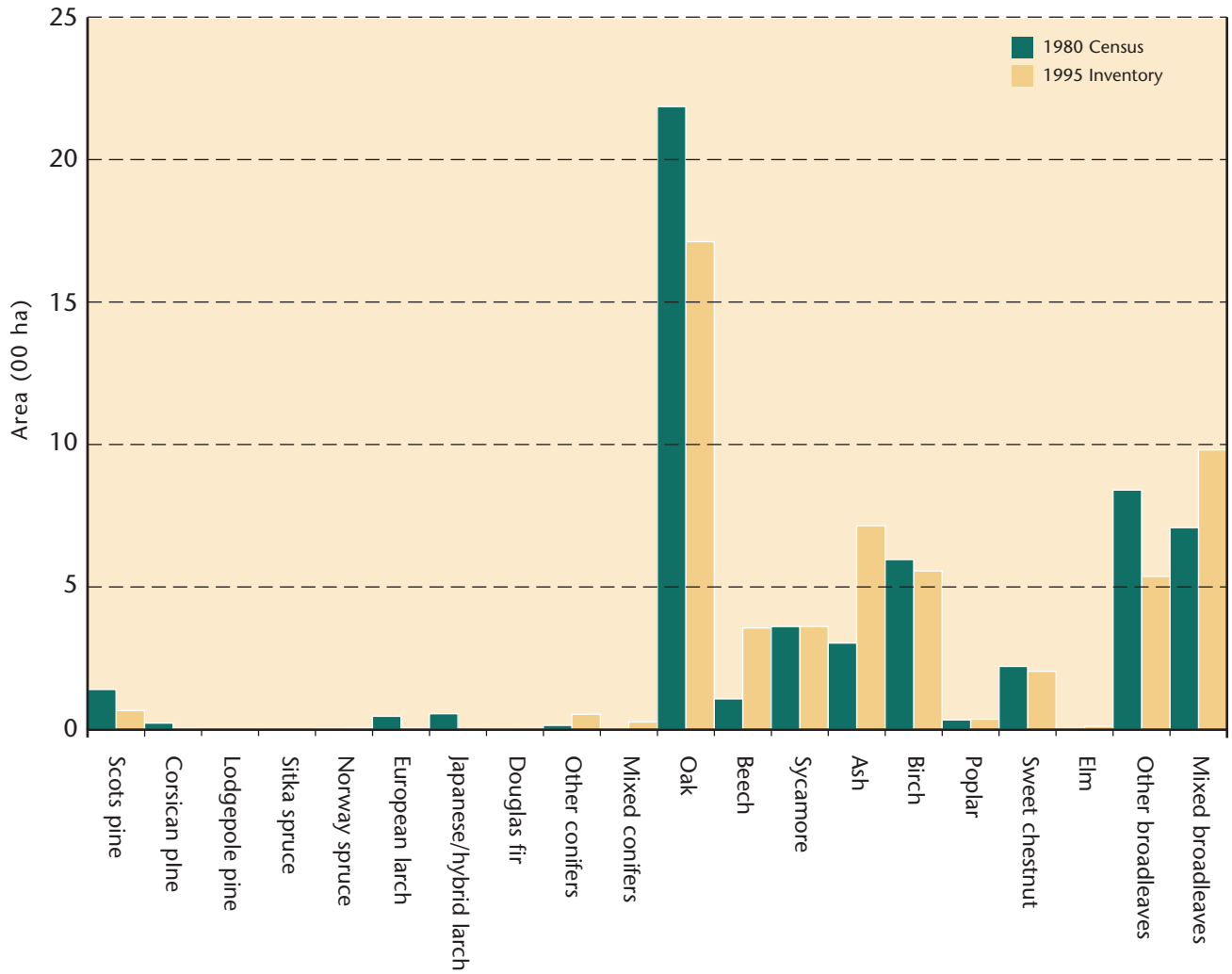
1. Differences in sampling methodology may account for some of the apparent differences.
2. The above figures from the 1995 Inventory exclude woodland between 0.1 and <0.25 hectares, thereby matching the scope of the 1980 Census. These 1995 figures will therefore not match those in the previous sections of the report.
3. Land area used to calculate woodland cover percent (1995), 157 916 hectares, was based on the 1991 Census of Population digital boundaries.
4. Land area used to calculate woodland cover percent (1980), 157 946 hectares, (Ordnance Survey data)

**Table 24** Comparison of High Forest area by species between 1980 Census and 1995 Inventory

Species	1980 Census woodland area (ha)	1995 Inventory woodland area (ha)	Change (%)
Scots pine	140	66	-53
Corsican pine	22	3	-86
Lodgepole pine	0	0	-
Sitka spruce	0	0	-
Norway spruce	3	4	42
European larch	46	4	-91
Japanese/hybrid larch	55	0	-100
Douglas fir	2	0	-100
Other conifers	14	53	275
Mixed conifers	2	26	1 280
<b>Total conifers</b>	<b>284</b>	<b>156</b>	<b>-45</b>
Oak	2 186	1 712	-22
Beech	107	356	232
Sycamore	361	361	0
Ash	303	715	136
Birch	596	556	-7
Poplar	33	36	9
Sweet chestnut	221	204	-8
Elm	0	11	-
Other broadleaves	840	537	-36
Mixed broadleaves	708	981	38
<b>Total broadleaves</b>	<b>5 357</b>	<b>5 469</b>	<b>2</b>
<b>Total – all species</b>	<b>5 641</b>	<b>5 625</b>	<b>0</b>
<b>Felled</b>	<b>41</b>	<b>29</b>	<b>-30</b>
<b>Total High Forest</b>	<b>5 682</b>	<b>5 654</b>	<b>0</b>

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 5.8% (Table 2). To obtain meaningful comparisons between the two datasets the 1980 Census data have therefore been reduced by 5.8%.
3. The above figures from the 1995 Inventory exclude woodland between 0.1 and <0.25 ha, thereby matching the scope of the 1980 Census. The 1995 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 1995 Inventory



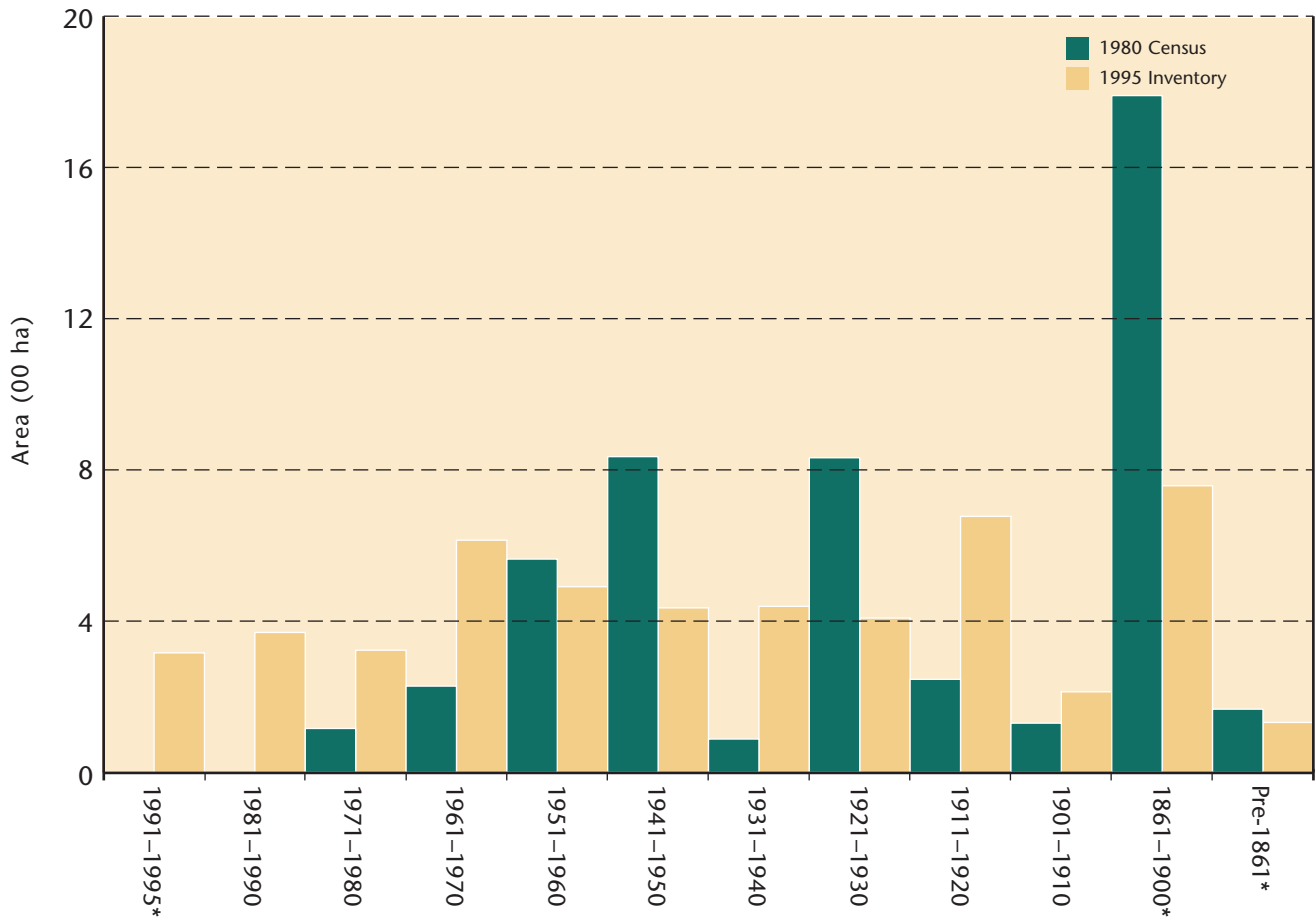
**Table 25** Comparison of High Forest Category 1 area by planting year class between 1980 Census and 1995 Inventory

Planting year class	1980 Census woodland area (ha)	1995 Inventory woodland area (ha)	Change (%)
1991–1995	-	316	-*
1981–1990	-	370	-*
1971–1980	116	323	179
1961–1970	228	614	169
1951–1960	564	491	-13
1941–1950	835	435	-48
1931–1940	88	439	401
1921–1930	832	408	-51
1911–1920	246	677	175
1901–1910	130	213	64
1861–1900	1 790	758	-58
Pre-1861	167	132	-21
<b>Total: all years</b>	<b>4 994</b>	<b>5 174</b>	<b>4</b>

\*These classes cover the period since the 1980 Census therefore no comparison can be made.

1. The definition of the 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 1995 Inventory



\*Most of the planting year classes cover 10 years, 1991-1995 is 5 years, and the classes prior to 1901 are 40 years or more.



**Table 26 Comparison of numbers of live trees outside woodland between 1980 Census and 1995 Inventory (000s trees)**

In the 1980 Census, the assessment of 'non-woodland trees and features' included those in developed areas, whereas the Survey of Small Woodland and Trees did not. Therefore comparisons of tree numbers, as presented in Tables 26 and 27 for other regions, are less relevant for London, and have been omitted.

**Table 27 Comparison of density of non-woodland features between 1980 Census and 1995 Inventory**

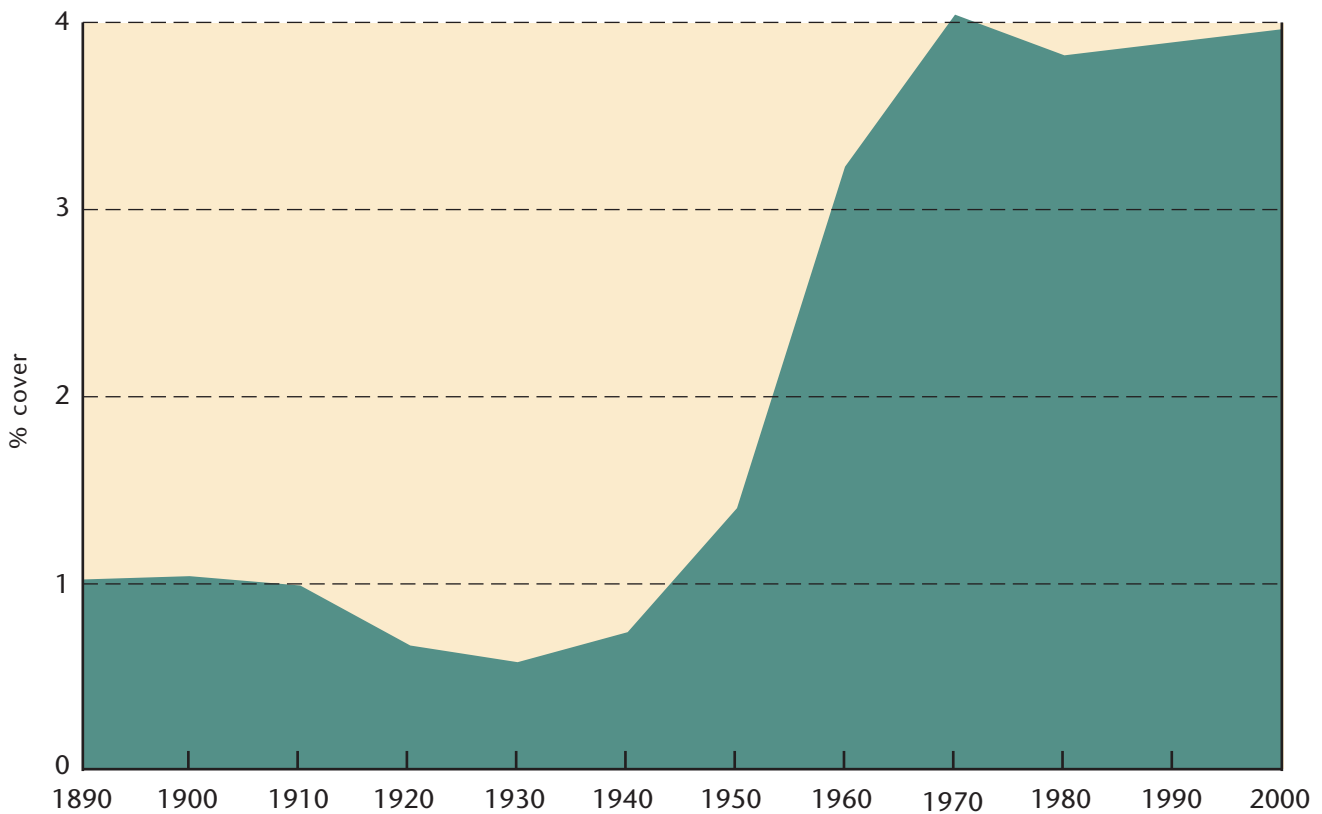
In the 1980 Census, the assessment of 'non-woodland trees and features' included those in developed areas, whereas the Survey of Small Woodland and Trees did not. Therefore comparisons of tree numbers, as presented in Tables 26 and 27 for other regions, are less relevant for London, and have been omitted.

## WOODLAND COVER

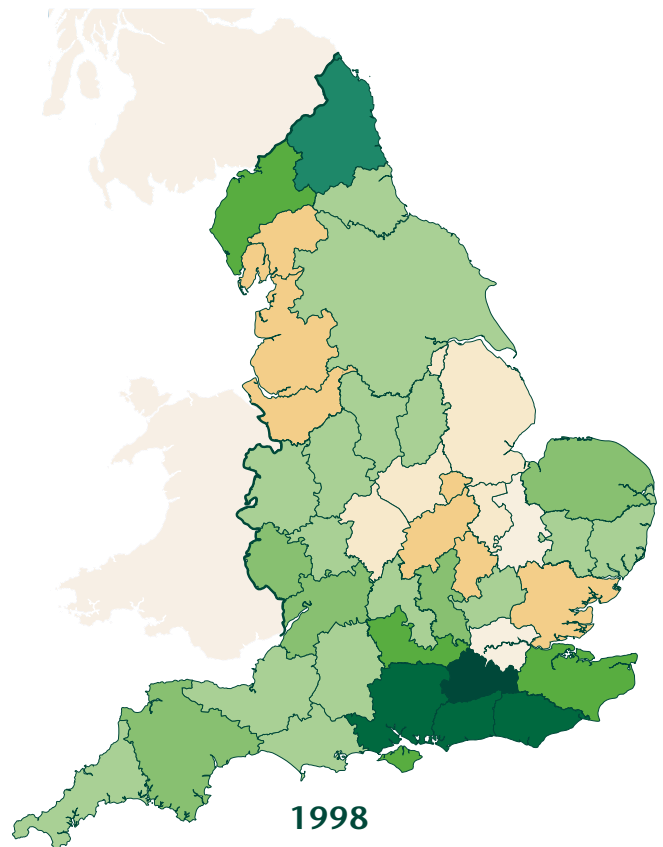
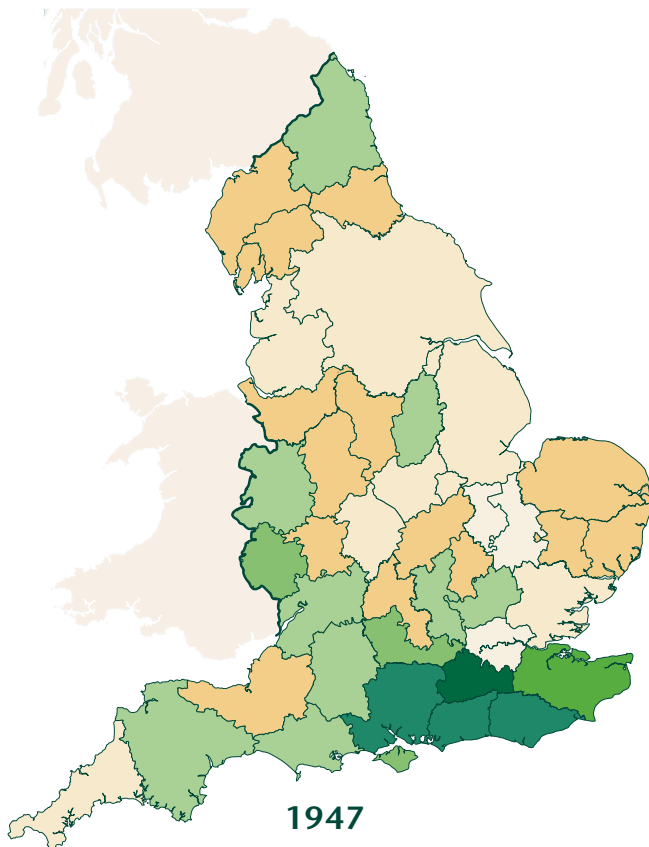
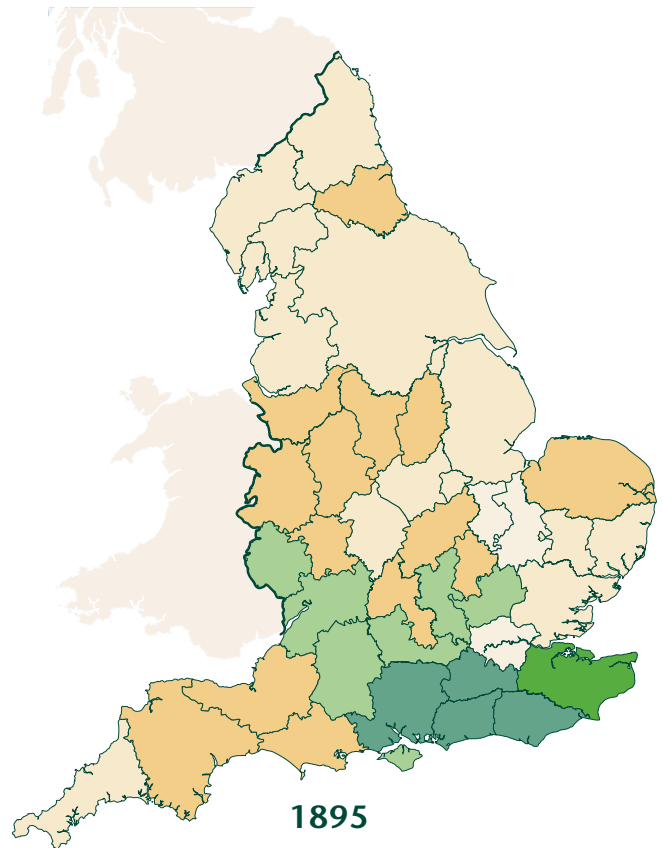
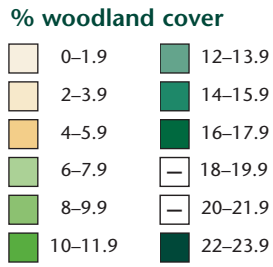
Woodland area data is available from Ministry of Agriculture surveys since 1871, and from Forestry Commission national woodland inventories since 1924. The following chart and maps show the changes in woodland area through time.

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

Change in woodland cover through time (1890–2000)



**Map 5 Woodland cover by county through time (1895–1998)**



## APPENDICES

Appendix 1–4 (which summarise county level data in the rest of the English regional reports) are not applicable to London Region, and have been omitted.



# 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 with 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 50 m 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 50 m, 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 1 m 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 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 with a crown that 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 a 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 50 m wide or as narrow as a single line of trees. Two types of Linear Feature are recognised:

- Narrow Linear Features (with a width of 16 m or less)
- Wide Linear Features (with a width greater than 16 m)



# NOTES



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