



Forestry Commission

INVENTORY REPORT

National Inventory of Woodland and Trees



**Scotland -
Central Region**

Part 1 - Woodlands of 2 hectares and over



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Woodland Surveys, Forest Research



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Preparation of the digital cartography for the Region was carried out by Graham Bull, Woodland Survey Officer, and Woodland GIS Officers Chris Brown, Esther Whitton and Robert Beck.

The authors of this Report are Steve Smith, Head of Woodland Surveys, and Justin Gilbert, Woodland Data Officer.

INTRODUCTION

The following report presents the results of the main woodland survey for Central Region from the Forestry Commission National Inventory of Woodlands and Trees.

The Inventory consists of two parts:

Part 1: the main woodland survey covering woodlands of 2 or more hectares and

Part 2: the small woodland and trees survey covering small woodlands, groups of trees and individual trees.

The results which follow are for Part 1, the main woodland survey, with a reference date of 31 March 1995. Woodland Surveys Branch of Forest Research was responsible for carrying out the survey and for compiling the report.

Part 2 of the Inventory will be published separately in 2000.

BACKGROUND

The Forestry Commission has carried out a number of national woodland surveys since 1924 with the interval between surveys being 15–20 years. The most recent of these surveys was in 1979–82. With the statistics becoming increasingly out of date the Forestry Commission decided to undertake a new survey called the National Inventory of Woodland and Trees.

The aim is to complete the survey for Great Britain by March 2001. Priority is being given to Scotland followed by Southern England, Wales and Northern England.

Although Central Region ceased to exist as a local authority on 31 March 1996 it remains a useful geographical unit for presentation and also for comparison with results from the previous survey.

SURVEY METHOD

In Scotland the main survey has been able to use the digital map from the Land Cover of Scotland (LCS) 1988 project.

For Central Region, this digital map has been updated to 31 March 1995 and gives the extent of all woodland over 2 hectares. The total area of woodland in Central 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:

- a) 2.0 ha - <100 ha : every fifth wood
- b) 100 ha - <500 ha : two woods in five
- c) 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 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.

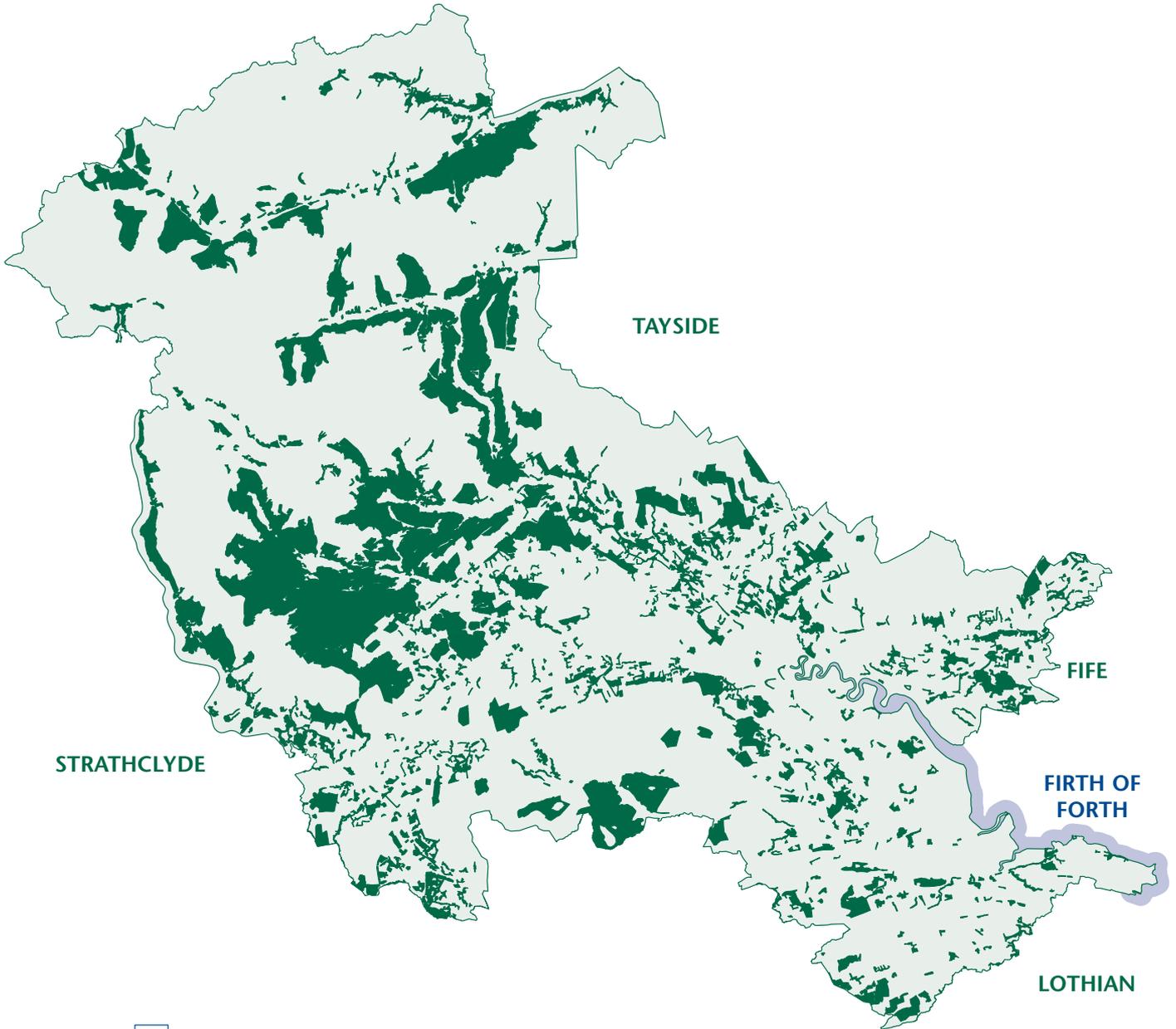
The main difference from the 1980 Census is the change in the minimum woodland area from 0.25 to 2.0 hectares. This means at this stage that the results of the main survey in the Inventory can only be compared approximately with the 1980 Census. However, when the next part of the Inventory is completed data will be available for Small Woodland between 0.25 and 2.0 hectares. This will make an analysis of change possible using comparable sets of information.

MAIN POINTS FROM THE CENTRAL RESULTS

- The total area of woodland in Central Region is 51 111 hectares. This represents 18.7% of the land area. (Table 1)
- 24 706 hectares or 48% of woodland is owned by or leased to the Forestry Commission and 26 405 hectares or 52% of woodland is in Other ownerships. (Table 1)
- There are a total of 748 woods over 2 hectares within Central Region with a mean wood area of 68 hectares. (Table 2a)
- Conifer woodland is the dominant forest type representing 61% of all woodland. Broadleaved woodland represents 19%, mixed woodland 5% and open space within woodlands 12%. (Table 3)
- The main conifer species is Sitka spruce covering 23 506 hectares or 72% of all conifer species. 42% of all conifers are within Other ownerships. (Table 4a)
- The main broadleaved species is Birch covering 3 994 hectares or 35% of all broadleaved species. 81% of all broadleaves are within Other ownerships. (Table 4a)
- High Forest covers 44 977 hectares or 88% of woodland. (Table 4a)
- Woodland land cover has increased by 14 817 hectares from 13.4% to 18.7% of the land area since 1980. (Table 8)

MAP 1 - DISTRIBUTION OF WOODLAND WITHIN CENTRAL REGION

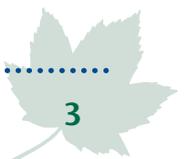
 Woodland over 2 hectares



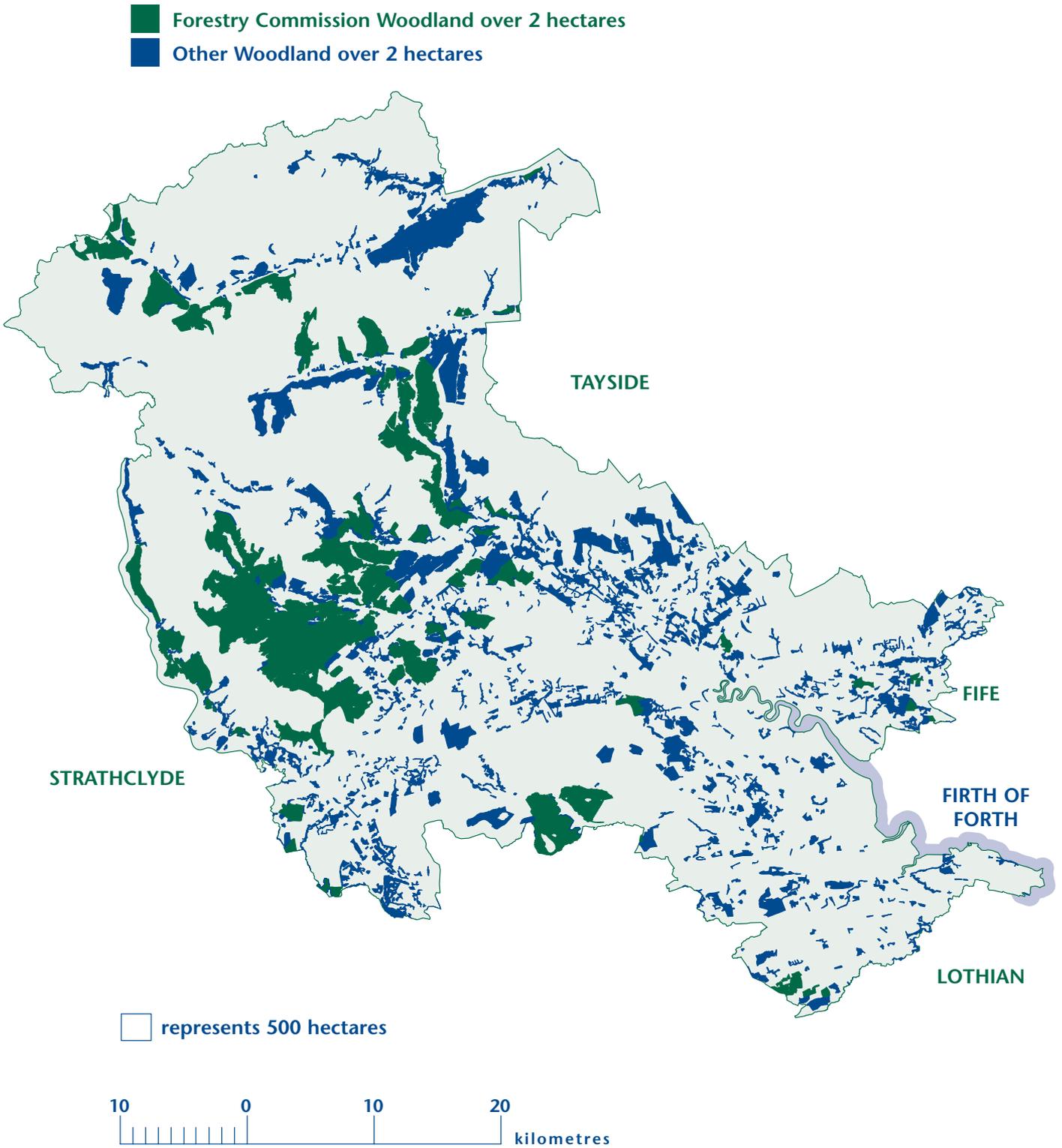
 represents 500 hectares



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MAP 2 - DISTRIBUTION OF WOODLAND BY OWNERSHIP WITHIN CENTRAL REGION



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RESULTS

TABLE 1 SUMMARY OF AREAS BY OWNERSHIP

Area (including inland water)	272900 ha	
Ownership	ha	% woodland
Forestry Commission	24706	48
Other	26405	52
Total Area of Woodland	51111	100
% Woodland Land Cover	18.7	

NOTE (Table 1)

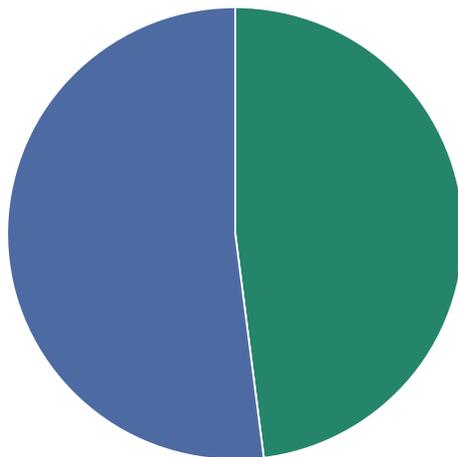
Area of Local Authority Unit based on digital boundaries used for 1991 Census of Population.

Woodland Area from LCS map updated to 31 March 1995.

Ownership Categories:

- Forestry Commission (FC) All woodland owned by, or leased to, the Forestry Commission.
- Other (O) Woodland other than FC woodland. Includes woodland owned by private individuals, partnerships trusts, business interests, local authorities, other government departments and agencies.

WOODLAND AREA BY OWNERSHIP



- FC 48%
- Other 52%

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

TABLE 2a SIZE CLASS DISTRIBUTION OF WOODLAND

Size Class (ha)	Number of Woods	Total Area (ha)	Percent of Total Area	Mean Wood Area (ha)
0 - < 2	47	20	0	0.4
2 - < 10	465	2113	4	4.5
10 - < 20	100	1471	3	14.7
20 - < 50	68	2077	4	30.5
50 - < 100	43	3010	6	70.0
2 - < 100	676	8671	17	12.8
100 - < 500	58	12530	24	216.0
500 - and >	14	29981	59	2141.5
All Woods	795	51201	100	64.4

NOTE (Table 2a)

The total area is 90ha more than that recorded in tables based on the sample data. This is mainly due to the field samples recording some land in other land uses not differentiated from woodland in the LCS map which was prepared from aerial photographs.

Some woods, over 2 hectares, are divided by the Regional boundary and only a part of their area falls within the Region. These part-woods are included above in the appropriate size category and are often less than 2 hectares.

TABLE 2b 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)
0 - < 2	FC	12	6	0	0.5
	Other	130	82	0	0.6
2 - < 10	FC	11	52	0	4.7
	Other	516	2341	5	4.5
10 - < 20	FC	3	41	0	13.7
	Other	116	1711	3	14.8
20 - < 50	FC	7	297	1	42.4
	Other	83	2500	5	30.1
50 - < 100	FC	13	845	2	65.0
	Other	47	3268	6	69.1
2 - < 100	FC	34	1234	2	36.3
	Other	762	9821	19	12.9
100 - < 500	FC	20	4769	9	238.5
	Other	45	8803	17	195.6
500 - and >	FC	11	18697	37	1699.7
	Other	7	7789	15	1112.8
Total	FC	77	24706	48	320.9
	Other	944	26494	52	28.1
Grand Total		795	51201	100	64.4

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



NOTE (Table 2b)

The total area is 90ha more than that recorded in tables based on the sample data. This is mainly due to the field samples recording some land in other land uses not differentiated from woodland in the LCS map which was prepared from aerial photographs.

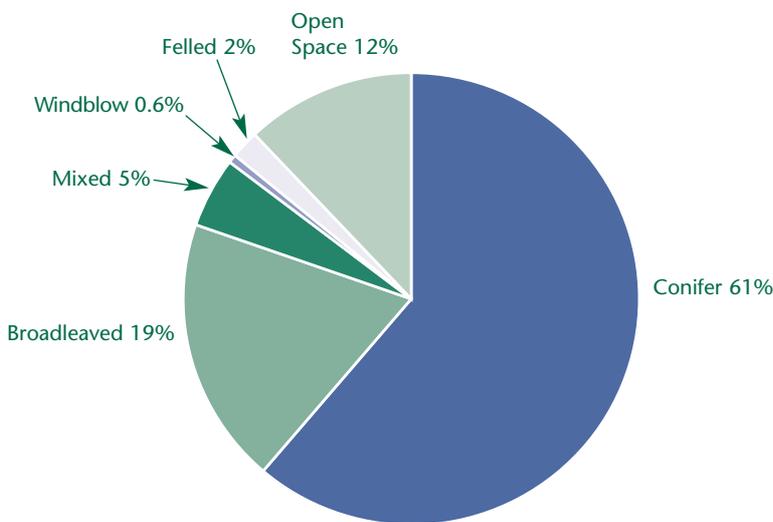
The data available from the digital map enable the identification of woodlands according to their ownerships, Forestry Commission or Other. The entries in the table cannot be added, to derive Table 2a, as some woods may consist of both FC and Other ownerships. For example, the Forestry Commission may own most of a large wood with some parts in Other ownership(s). In Table 2a the whole area would be treated as one wood and the area allocated to one size category. In Table 2b 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 3 AREAS OF WOODLAND BY FOREST TYPE AND OWNERSHIP						
Forest Type	FC		Other		All Woods	
	ha	%	ha	%	ha	%
Conifer	18516	74.9	12879	48.8	31396	61.4
Broadleaved	1568	6.3	8367	31.7	9936	19.4
Mixed	791	3.2	1573	6.0	2363	4.6
Coppice	0	0.0	0	0.0	0	0.0
Copp-w-Stds	0	0.0	0	0.0	0	0.0
Windblow	226	0.9	96	0.4	321	0.6
Felled	739	3.0	222	0.8	961	1.9
Open space	2866	11.6	3268	12.4	6134	12.0
Total	24706	100.0	26405	100.0	51111	100.00

NOTE (Table 3)

Please refer to the Glossary on page 22 for definitions of forest types.

% FOREST TYPE BY AREA - ALL WOODLAND



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

TABLE 4a AREAS OF HIGH FOREST BY PRINCIPAL SPECIES AND OWNERSHIP

Species	FC			Other			All Woodland		
	Area (ha)	cat %	spp %	Area (ha)	cat %	spp %	Area (ha)	cat %	spp %
Scots pine	860	5	4	943	7	4	1803	6	4
Corsican pine	39	0	0	0	0	0	39	0	0
Lodgepole pine	630	3	3	415	3	2	1045	3	2
Sitka spruce	13561	72	64	9945	72	43	23506	72	53
Norway spruce	1760	9	8	562	4	2	2323	7	5
European larch	231	1	1	263	2	1	493	2	1
Jap/Hybrid larch	1308	7	6	962	7	4	2270	7	5
Douglas fir	351	2	2	212	2	1	563	2	1
Other conifers	179	1	1	173	1	1	351	1	1
Mixed conifers	34	0	0	260	2	1	293	1	1
Total conifers	18950	100	90	13734	100	60	32684	100	74
Oak	538	25	3	1677	18	7	2215	20	5
Beech	50	2	0	308	3	1	357	3	1
Sycamore	68	3	0	666	7	3	735	6	2
Ash	106	5	1	339	4	1	445	4	1
Birch	759	35	4	3235	35	14	3994	35	9
Poplar	0	0	0	33	0	0	33	0	0
Sweet chestnut	0	0	0	0	0	0	0	0	0
Elm	0	0	0	15	0	0	15	0	0
Other broadleaves	193	9	1	1146	12	5	1339	12	3
Mixed broadleaves	438	20	2	1762	19	8	2200	19	5
Total broadleaves	2151	100	10	9181	100	40	11332	100	26
Total - all species	21101		100	22915		100	44016		100
Felled	739			222			961		
Total High Forest	21840			23137			44977		

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

NOTE (Table 4a)

cat: species percentage of conifer or broadleaved in the ownership category.

spp: percentage of all species in the ownership category.

In addition to the areas shown there are 6134 hectares of other areas integral to the woodland not stocked with tree species.

The standard errors of the area estimates for the most common species are as follows:

Conifers	3%
Broadleaves	6%
Sitka spruce	4%
Norway spruce	12%
Birch	11%

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).

These standard errors are for the species areas in all woodland types.

AREAS OF HIGH FOREST BY PRINCIPAL SPECIES AND OWNERSHIP

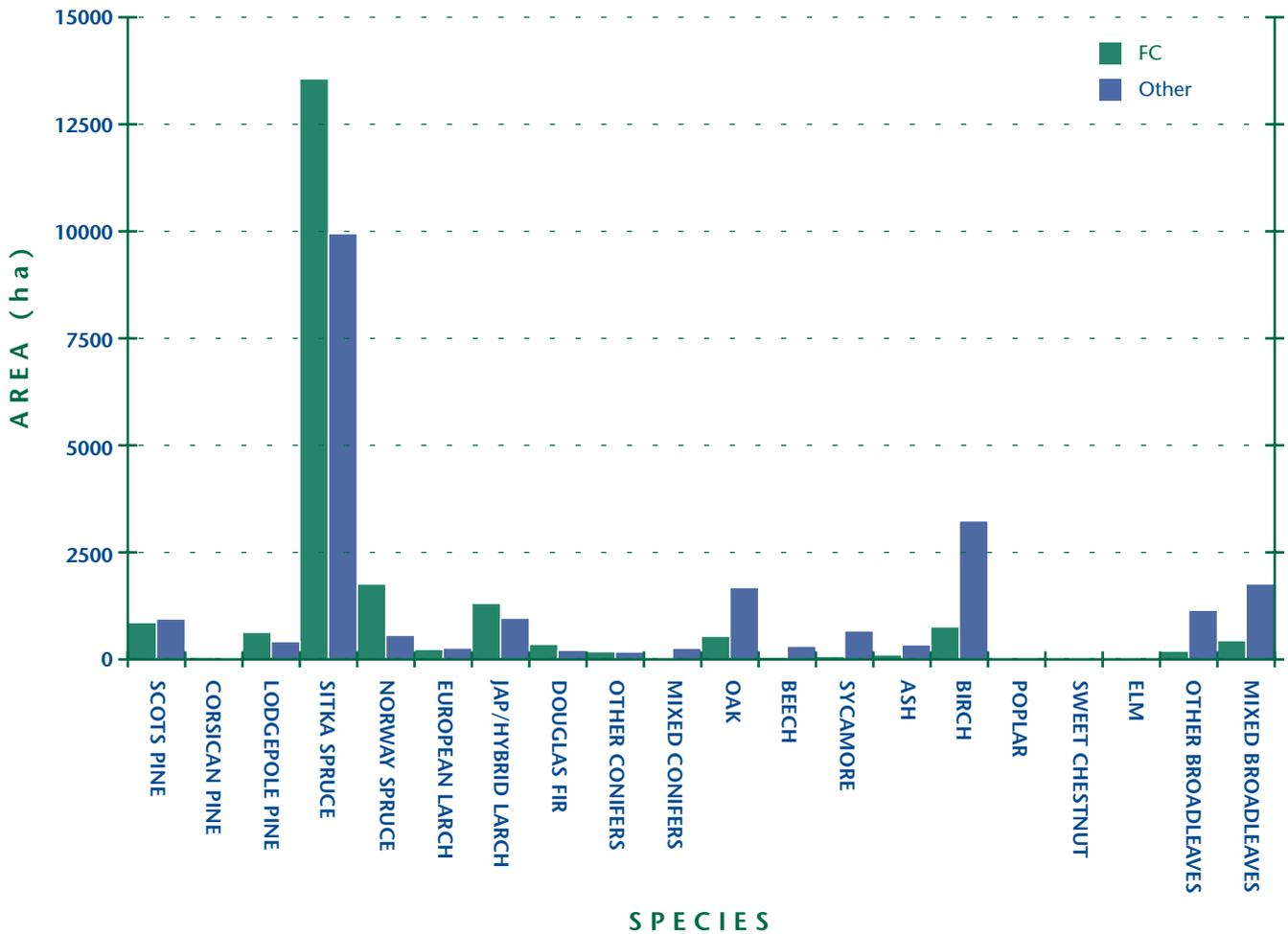


TABLE 4b AREAS OF HIGH FOREST BY PRINCIPAL SPECIES, OWNERSHIP AND CATEGORY

Species	FC			Other			All Ownerships		
	Cat 1	Cat 2	Tot HF	Cat 1	Cat 2	Tot HF	Cat 1	Cat 2	Tot HF
Scots pine	759	101	860	609	333	943	1368	434	1803
Corsican pine	39	0	39	0	0	0	39	0	39
Lodgepole pine	562	67	630	335	80	415	898	147	1045
Sitka spruce	13195	366	13561	9594	351	9945	22789	717	23506
Norway spruce	1635	125	1760	526	37	562	2161	162	2323
European larch	231	0	231	238	25	263	469	25	493
Jap/Hybrid larch	1303	5	1308	921	41	962	2224	46	2270
Douglas fir	341	10	351	212	0	212	553	10	563
Other conifers	174	5	179	148	25	173	321	30	351
Mixed conifers	29	5	34	152	108	260	181	112	293
Total conifers	18267	683	18950	12735	999	13734	31002	1682	32684
Oak	144	394	538	544	1133	1677	688	1527	2215
Beech	27	23	50	69	239	308	95	262	357
Sycamore	68	0	68	363	303	666	432	303	735
Ash	24	82	106	80	259	339	104	341	445
Birch	332	428	759	196	3039	3235	527	3467	3994
Poplar	0	0	0	0	33	33	0	33	33
Sweet chestnut	0	0	0	0	0	0	0	0	0
Elm	0	0	0	0	15	15	0	15	15
Other broadleaves	35	158	193	223	923	1146	256	1083	1339
Mixed broadleaves	143	295	438	360	1402	1762	502	1697	2200
Total broadleaves	771	1380	2151	1834	7347	9181	2605	8727	11332
Total - all species	19038	2063	21101	14569	8346	22915	33607	10409	44016

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

NOTE (Table 4b)

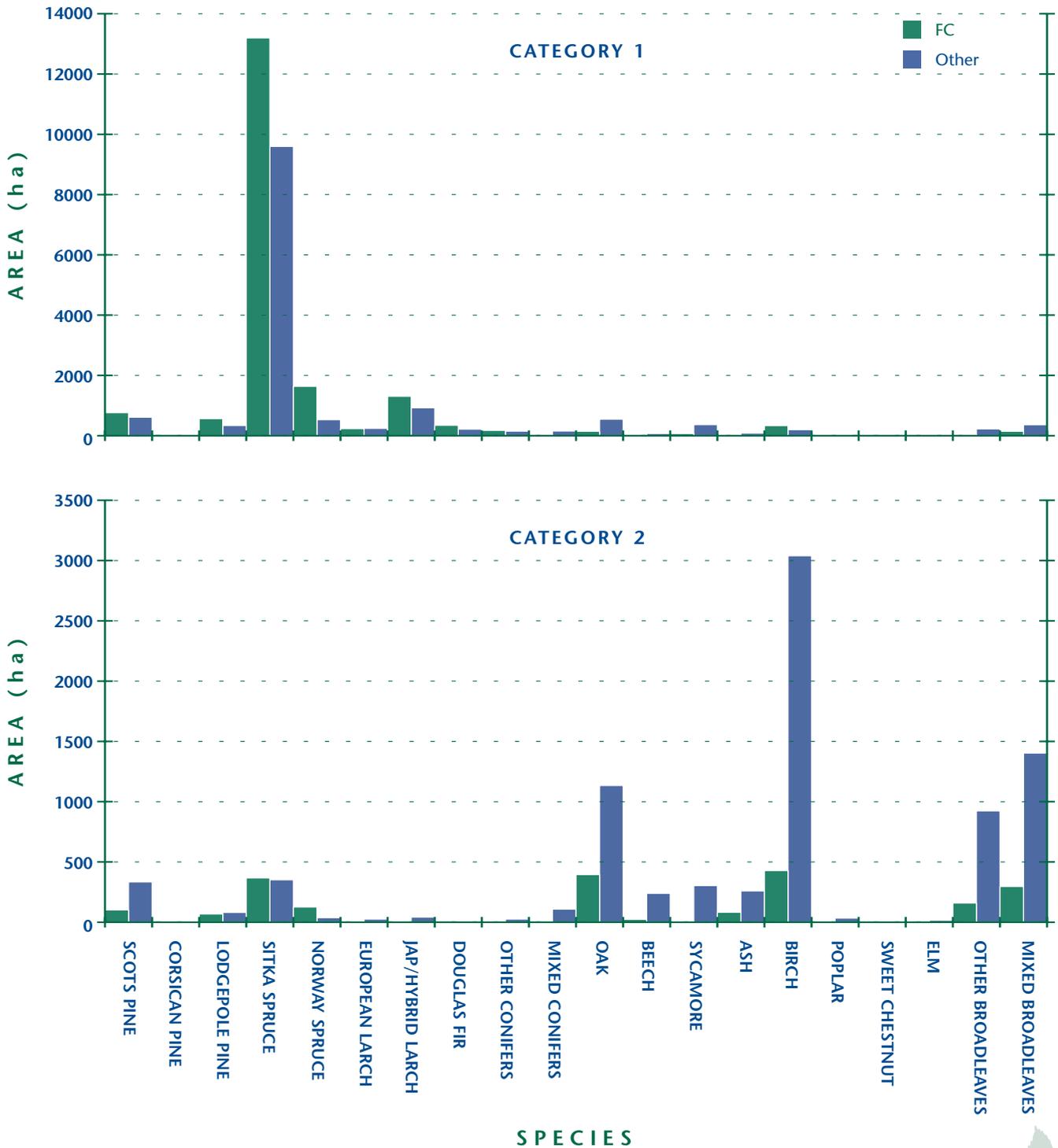
The standard errors of the area estimates for the most common species or species groups are as follows:

	Cat 1	Cat 2	Total HF
Conifers	2%	17%	3%
Broadleaves	19%	6%	6%
Jap/Hybrid larch	12%	58%	12%
Sitka spruce	3%	21%	4%
Mixed broadleaves	23%	13%	12%
Birch	18%	12%	11%

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).

These standard errors are for the species areas in all woodland types.

AREAS OF HIGH FOREST BY PRINCIPAL SPECIES AND OWNERSHIP



**TABLE 5a HIGH FOREST CATEGORY 1 -
AREAS BY PRINCIPAL SPECIES AND PLANTING YEAR CLASSES**

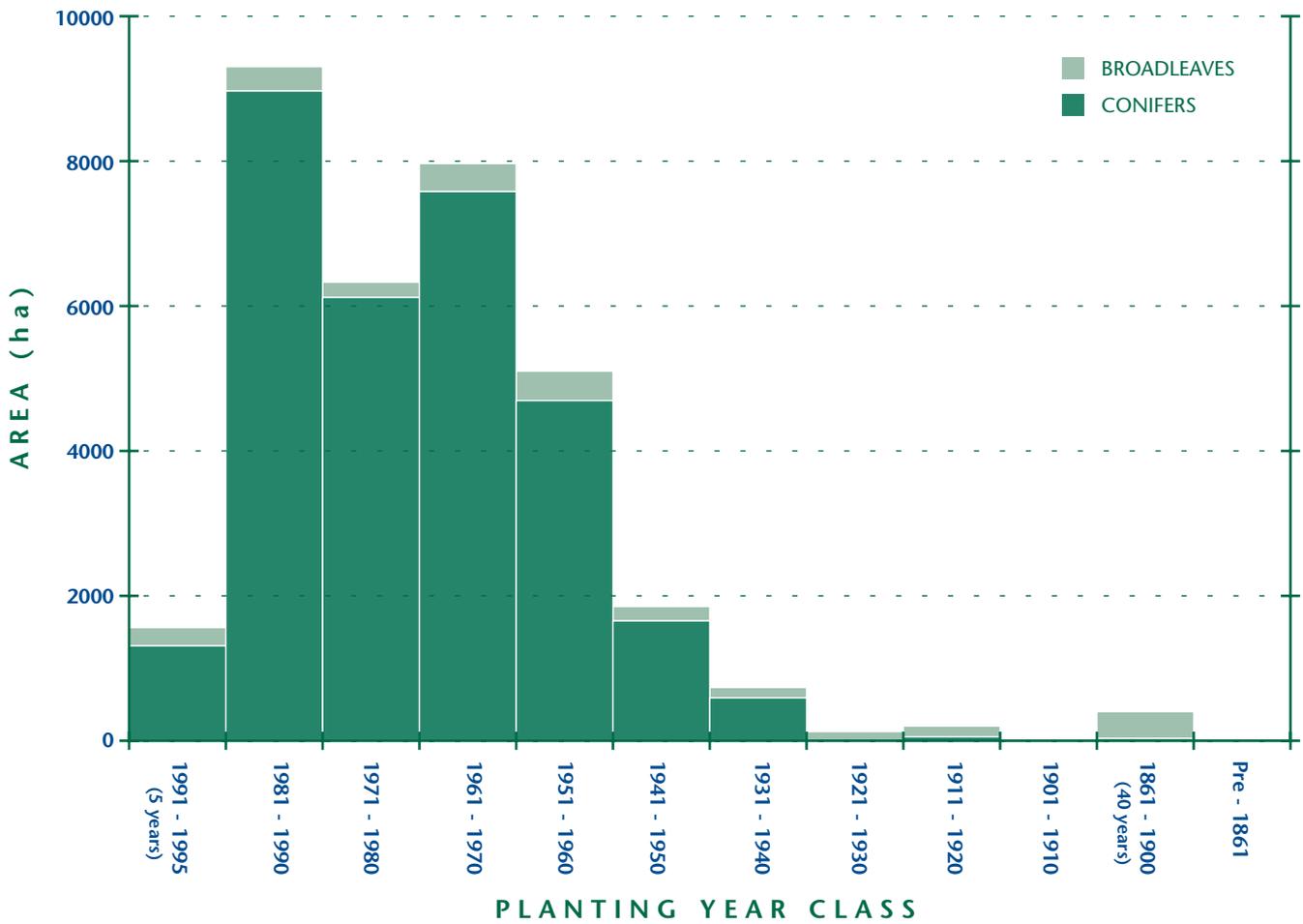
Species	PLANTING YEAR CLASS												TOTAL
	1991 -1995	1981 -1990	1971 -1980	1961 -1970	1951 -1960	1941 -1950	1931 -1940	1921 -1930	1911 -1920	1901 -1910	1861 -1900	pre - 1861	
Scots pine	71	25	223	250	461	172	111	0	29	0	28	0	1368
Corsican pine	0	0	0	0	18	0	20	0	0	0	0	0	39
Lodgepole pine	4	239	49	351	255	0	0	0	0	0	0	0	898
Sitka Spruce	1070	7710	5095	5709	2220	869	115	0	0	0	0	0	22789
Norway spruce	0	196	223	480	802	347	112	0	0	0	0	0	2161
European larch	50	154	0	14	10	79	139	0	19	0	4	0	469
Jap/Hybrid larch	111	400	481	484	654	61	35	0	0	0	0	0	2224
Douglas fir	5	136	43	120	166	34	50	0	0	0	0	0	553
Other conifers	0	93	5	150	61	10	0	0	0	0	0	0	321
Mixed conifers	0	15	0	20	48	84	10	0	5	0	0	0	181
Total conifers	1310	8968	6119	7579	4695	1654	592	0	53	0	32	0	31002
Oak	23	7	0	67	18	40	80	42	116	0	296	0	688
Beech	0	0	0	15	26	3	20	0	14	0	7	10	95
Sycamore	0	0	64	123	219	0	25	0	0	0	0	0	432
Ash	58	6	23	10	0	0	8	0	0	0	0	0	104
Birch	10	175	45	150	44	69	0	25	0	0	10	0	527
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 blvs	31	78	35	0	10	44	0	60	0	0	0	0	256
Mixed blvs	131	69	45	22	88	41	10	0	21	0	57	20	502
Total broadleaves	252	335	210	387	405	198	143	126	150	0	369	30	2605
Total - all species	1562	9303	6329	7966	5100	1852	735	126	203	0	401	30	33607

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

NOTE (Table 5a)

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 - AREAS BY PLANTING YEAR CLASS



**TABLE 5b HIGH FOREST CATEGORY 1 - FORESTRY COMMISSION
AREAS BY PRINCIPAL SPECIES AND PLANTING YEAR CLASSES**

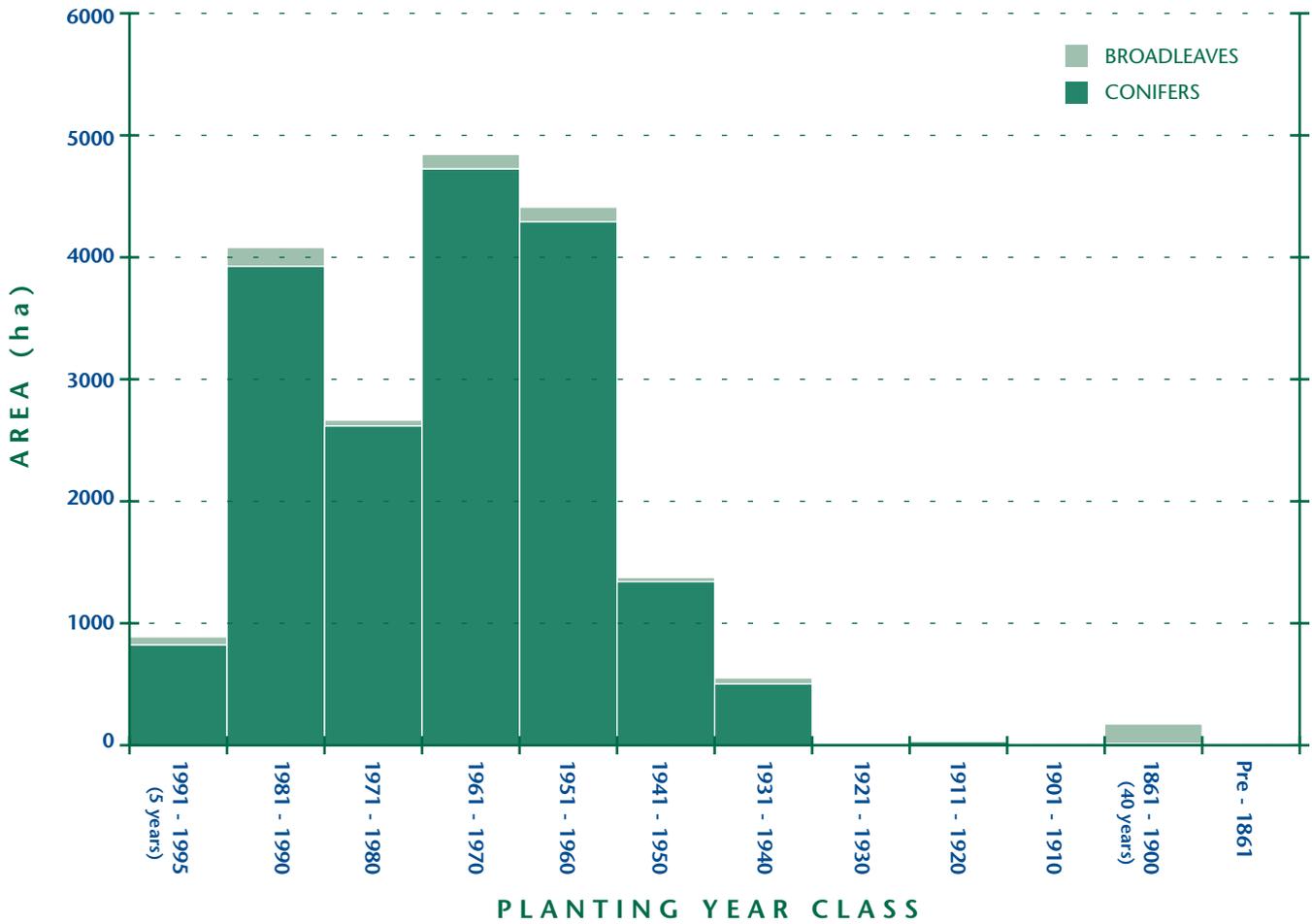
Species	PLANTING YEAR CLASS												TOTAL
	1991 -1995	1981 -1990	1971 -1980	1961 -1970	1951 -1960	1941 -1950	1931 -1940	1921 -1930	1911 -1920	1901 -1910	1861 -1900	pre - 1861	
Scots pine	19	0	0	72	461	72	111	0	10	0	14	0	759
Corsican pine	0	0	0	0	18	0	20	0	0	0	0	0	39
Lodgepole pine	4	0	14	289	255	0	0	0	0	0	0	0	562
Sitka spruce	783	3479	2386	3491	2110	831	115	0	0	0	0	0	13195
Norway spruce	0	82	14	422	694	317	107	0	0	0	0	0	1635
European larch	0	19	0	14	10	29	139	0	19	0	0	0	231
Jap/Hybrid larch	16	241	202	205	576	53	10	0	0	0	0	0	1303
Douglas fir	0	86	0	120	101	34	0	0	0	0	0	0	341
Other conifers	0	19	0	110	38	5	0	0	0	0	0	0	174
Mixed conifers	0	0	0	0	29	0	0	0	0	0	0	0	29
Total conifers	822	3926	2617	4724	4291	1341	502	0	29	0	14	0	18267
Oak	0	0	0	0	0	0	0	5	0	0	139	0	144
Beech	0	0	0	0	0	0	20	0	0	0	2	5	27
Sycamore	0	0	0	0	48	0	20	0	0	0	0	0	68
Ash	24	0	0	0	0	0	0	0	0	0	0	0	24
Birch	0	120	29	115	34	14	0	10	0	0	10	0	332
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 blvs	5	10	20	0	0	0	0	0	0	0	0	0	35
Mixed blvs	37	24	0	5	38	19	10	0	0	0	10	0	143
Total broadleaves	66	154	48	120	120	34	50	14	0	0	160	5	771
Total - all species	888	4080	2665	4844	3480	1374	553	14	29	0	175	5	19038

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

NOTE (Table 5b)

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 -
AREAS BY PLANTING YEAR CLASS



**TABLE 5c HIGH FOREST CATEGORY 1 - OTHER OWNERSHIPS
AREAS BY PRINCIPAL SPECIES AND PLANTING YEAR CLASSES**

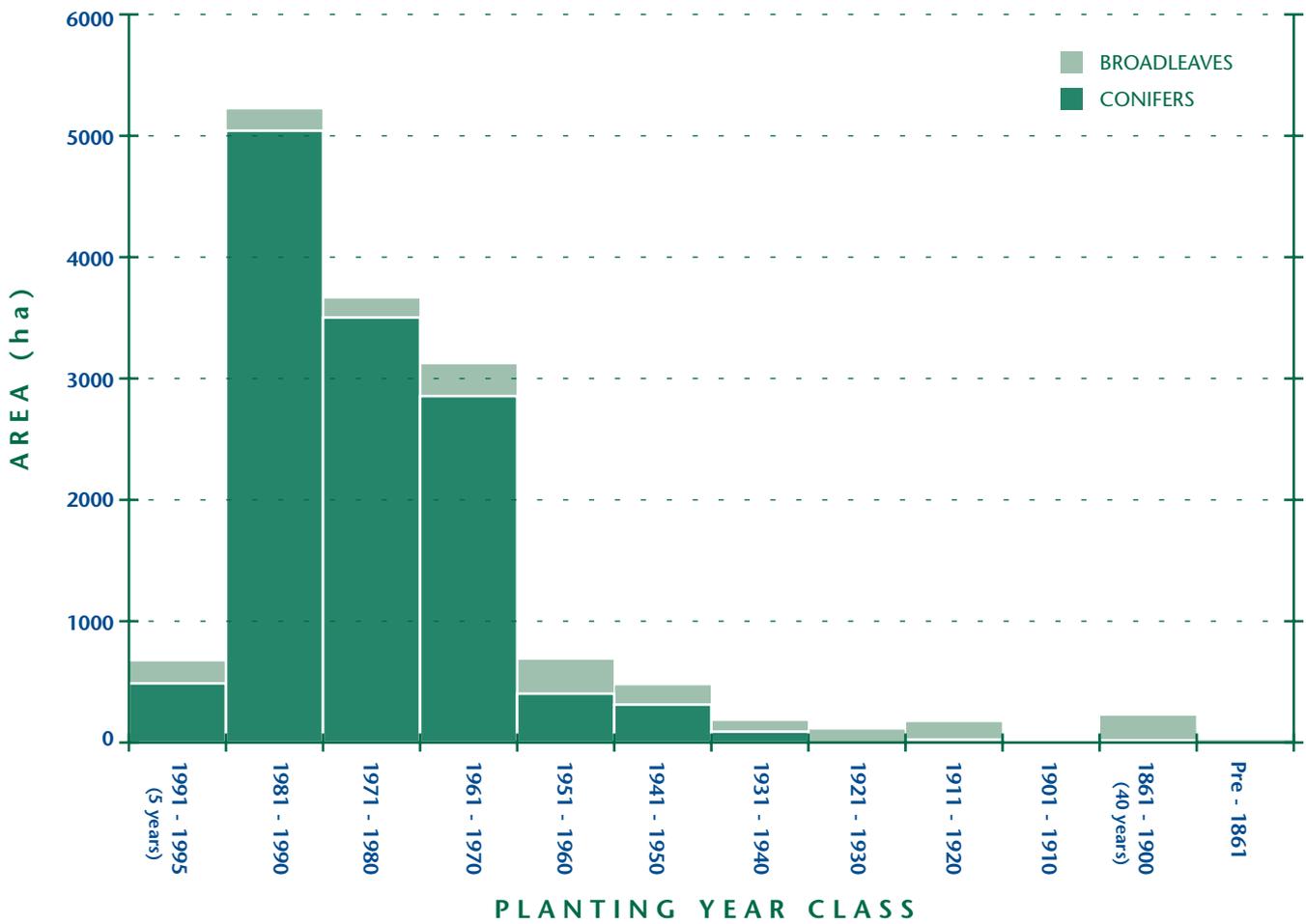
Species	PLANTING YEAR CLASS												TOTAL
	1991 -1995	1981 -1990	1971 -1980	1961 -1970	1951 -1960	1941 -1950	1931 -1940	1921 -1930	1911 -1920	1901 -1910	1861 -1900	pre - 1861	
Scots pine	52	25	223	178	0	99	0	0	19	0	14	0	609
Corsican pine	0	0	0	0	0	0	0	0	0	0	0	0	0
Lodgepole pine	0	239	35	62	0	0	0	0	0	0	0	0	335
Sitka spruce	287	4231	2710	2219	110	38	0	0	0	0	0	0	9594
Norway spruce	0	114	209	59	108	30	5	0	0	0	0	0	526
European larch	50	134	0	0	0	50	0	0	0	0	4	0	238
Jap/Hybrid larch	95	159	276	278	78	8	25	0	0	0	0	0	921
Douglas fir	5	50	43	0	65	0	50	0	0	0	0	0	212
Other conifers	0	75	5	40	23	5	0	0	0	0	0	0	148
Mixed conifers	0	15	0	20	19	84	10	0	5	0	0	0	152
Total conifers	488	5042	3503	2855	403	313	90	0	24	0	18	0	12735
Oak	23	7	0	67	18	40	80	37	116	0	156	0	544
Beech	0	0	0	15	26	3	0	0	14	0	5	5	69
Sycamore	0	0	64	123	171	0	5	0	0	0	0	0	363
Ash	34	6	23	10	0	0	8	0	0	0	0	0	80
Birch	10	55	16	35	10	55	0	15	0	0	0	0	196
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 blvs	26	68	15	0	10	44	0	60	0	0	0	0	223
Mixed blvs	94	45	45	17	50	22	0	0	21	0	47	20	360
Total broadleaves	186	181	162	267	285	164	93	112	150	0	208	25	1834
Total - all species	674	5223	3665	3122	688	477	182	112	174	0	226	25	14569

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

NOTE (Table 5c)

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 OWNERSHIPS -
AREAS BY PLANTING YEAR CLASS



**TABLE 6 HIGH FOREST -
PRINCIPAL SPECIES BY PLANTING YEAR CLASSES**

Planting Year Class	First	%	Second	%	Third	%
1991-1995	Sitka spruce	63	Mixed broadleaves	11	Jap/Hybrid larch	6
1981-1990	Sitka spruce	78	Jap/Hybrid larch	4	Birch	4
1971-1980	Sitka spruce	72	Jap/Hybrid larch	6	Birch	6
1961-1970	Sitka spruce	58	Birch	11	Norway spruce	5
1951-1960	Sitka spruce	30	Birch	17	Norway spruce	11
1941-1950	Sitka spruce	29	Birch	15	Norway spruce	12
1931-1940	Oak	26	Mixed broadleaves	10	European larch	10
1921-1930	Oak	69	Birch	10	Other broadleaves	9
1911-1920	Oak	48	Beech	20	Mixed broadleaves	10
1901-1910	Mixed broadleaves	44	Oak	32	Beech	10
1861-1900	Oak	60	Mixed broadleaves	16	Scots pine	8
Pre 1861	Mixed broadleaves	59	Beech	30	Oak/Birch*	6
All years	Sitka spruce	53	Birch	9	Norway spruce	5

*The third placed species in the pre 1861 class, Oak and Birch, both had equal areas.

**TABLE 7 OWNERSHIP TYPE BY AREA
AND PERCENTAGE**

Ownership Type	Area (ha)	%
Personal	19766	38.7
Private forestry or timber business	1143	2.2
Other private business	2901	5.7
Local Authority	1941	3.8
Other public body (not FC)	98	0.2
Forestry Commission	24706	48.3
Charity	144	0.3
Community ownership or common land	0	0.0
Unclassified	412	0.8
Total	51111	100.0

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

NOTE (Table 7)

Please refer to the Glossary on page 22 for definitions of ownership types.

COMPARISON OF RESULTS WITH THE 1980 CENSUS

The 1980 Census and 1995 Inventory were undertaken by very different sampling methods. The comparison with the 1980 Census of Woodlands and Trees is not yet complete because of the difference in minimum area for woodland. Within the 1980 Census the minimum area of woodland was 0.25 hectares whilst in the National Inventory of Woodland it is 2 hectares. The total area of woodland within the Inventory will be revised to include an estimate of the area between 0.25 - 2.0 hectares once the Small Woodlands and Trees Survey is completed.

The apparent differences shown in the following tables should therefore be treated with caution, particularly where areas are small.

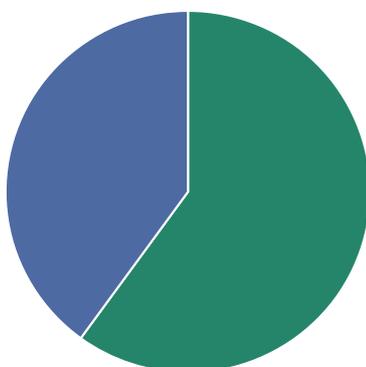
TABLE 8 WOODLAND AREAS AND OWNERSHIP

	CENSUS 31/3/80	INVENTORY 31/3/95	CHANGE (%)
Area (inc. inland water)	270489	272900	0.9
FC Woodland area	21797	24706	13.3
Other ownership area	14497	26405	82.1
Total Area of Woodland	36294	51111	40.8
% Woodland Cover	13.4	18.7	39.6

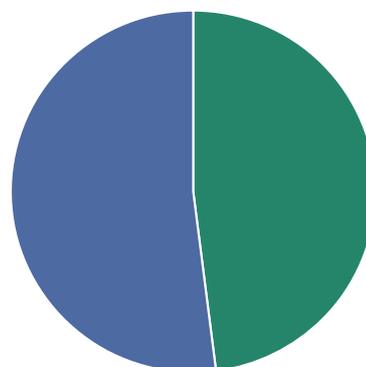
NOTE (Table 8)

Area (including inland water)-in the interval between the two surveys the Regional boundary was revised. The method of measurement has also undergone development.

CENSUS 1980



INVENTORY 1995



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

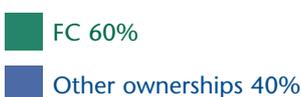


TABLE 9 COMPARISON BETWEEN 1995 INVENTORY AND 1980 CENSUS HIGH FOREST - AREAS BY PRINCIPAL SPECIES

SPECIES	1980 CENSUS	1995 INVENTORY
Scots pine	2052	1803
Corsican pine	12	39
Lodgepole pine	1748	1045
Sitka spruce	15091	23506
Norway spruce	3296	2323
European larch	577	493
Jap/Hybrid larch	2050	2270
Douglas fir	324	563
Other conifers	304	351
Mixed conifers	174	293
Total conifers	25628	32684
Oak	1343	2215
Beech	352	357
Sycamore	579	735
Ash	121	445
Birch	2045	3994
Poplar	4	33
Sweet chestnut	0	0
Elm	157	15
Other broadleaves	838	1339
Mixed broadleaves	293	2000
Total broadleaves	5732	11332
TOTAL - all species	31361	44016
Felled	577	961
Total - High Forest	31939	44977

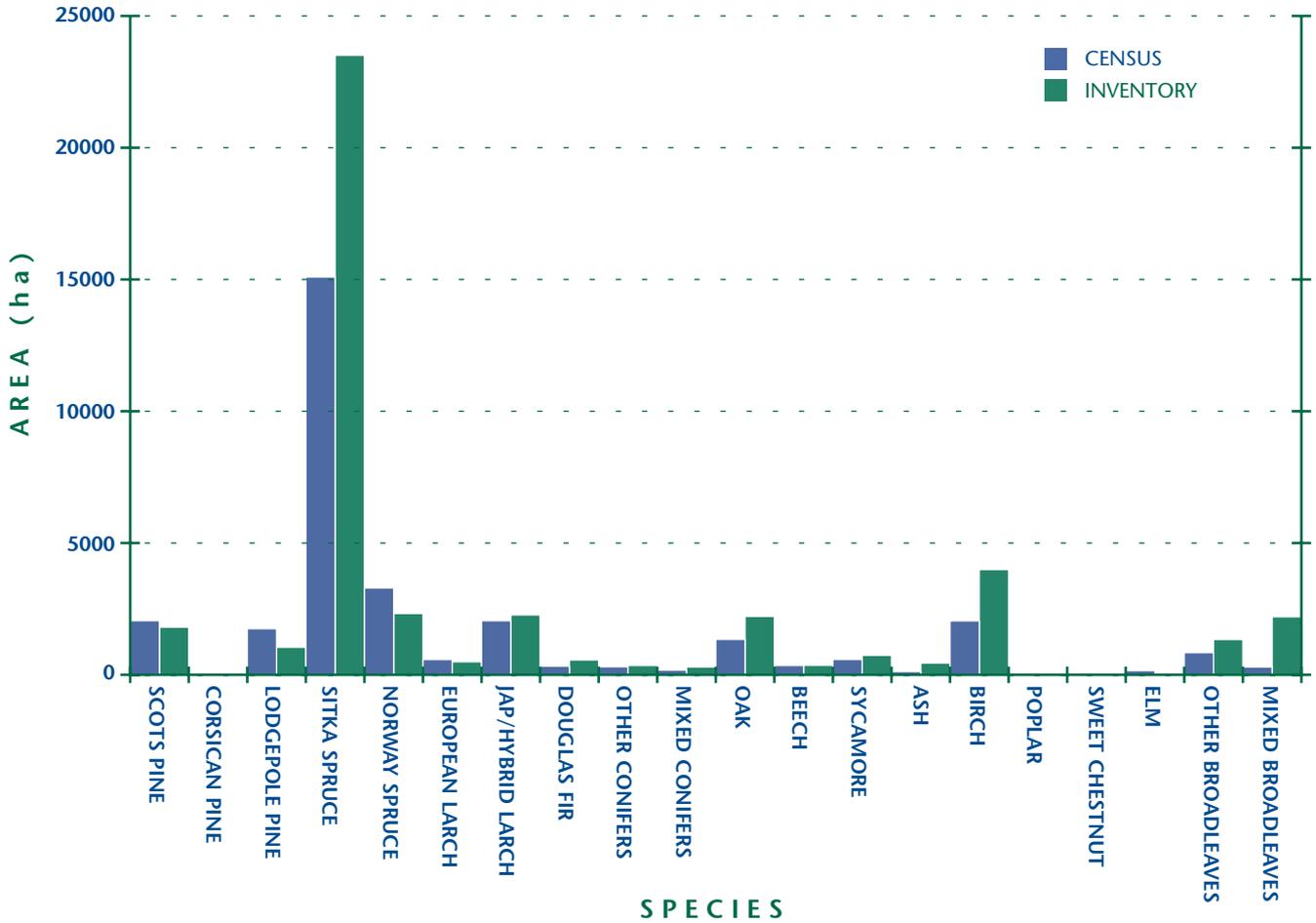
NOTE (Table 9)

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 12.0% (Table 3). To obtain meaningful comparisons between the two datasets the 1980 Census data have therefore been reduced by 12.0%. Area allocated to scrub has also been included in the 1980 Census data to make it comparable with the 1995 Inventory data.

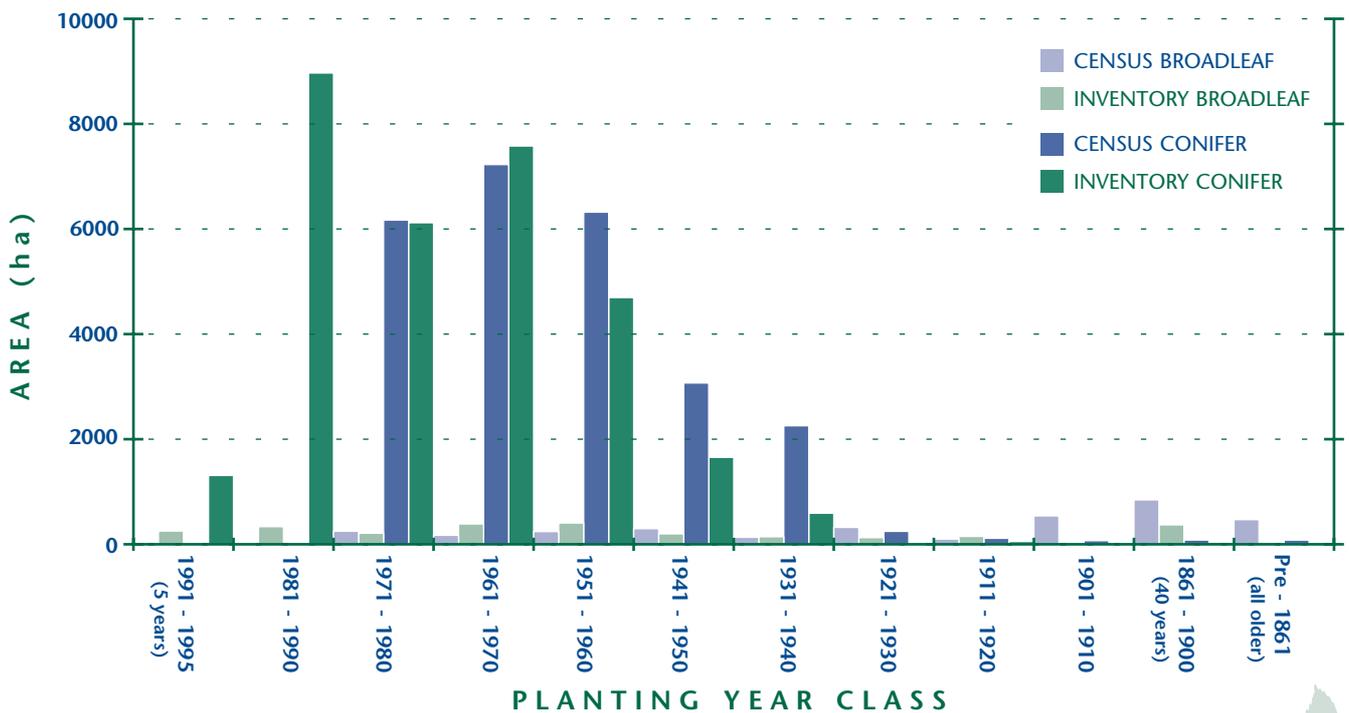
N.B. Woodlands between 0.25 and 2.0 hectares are not yet included in the 1995 Inventory figures (above). These are expected to contain a high proportion of broadleaved species.

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

COMPARISON BETWEEN 1995 INVENTORY AND 1980 CENSUS - HIGH FOREST - AREAS BY PRINCIPAL SPECIES



COMPARISON BETWEEN 1995 INVENTORY AND 1980 CENSUS - HIGH FOREST CATEGORY 1 - AREAS BY PLANTING YEAR CLASS



GLOSSARY

Woodland

In the United Kingdom woodland is defined as land 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. 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 hectares and over, and with a minimum width of 50 m, is included in the main woodland survey, Part 1 of the Inventory; other woodland and trees are assessed in Part 2, the small woodland and trees survey.

High Forest

All woodland with the exception of stands managed as coppice or coppice with standards with, or 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 and small roundwood.

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 hectare 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 Ownerships

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 Body (not FC)

Government department/agency, nationalised industry, etc.

Charitable

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

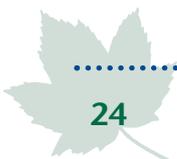
*Community Ownership or
Common Land*

The common property of all members of the community.

Forestry Commission

Land owned by or land leased to the Forestry Commission.

NOTES





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