

NFI preliminary estimates of quantities of broadleaved species in British woodlands, with special focus on ash

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Summary

The National Forest Inventory provides a record of the size and distribution of forests and woodlands in Great Britain and information on key forest attributes. This preliminary National Forest Inventory Report provides estimates of the stocked area, numbers of trees and standing volume in living broadleaved trees within forests and woodlands in Great Britain as at 31 March 2011. The report provides a particular focus on the ash species, expressing estimates of quantities of ash in the context of quantities of all broadleaved species. Information in this report includes estimates for England, Scotland and Wales, and individual regions within England and Scotland, each broken down by Forestry Commission and private sector ownership. Estimates are also provided for individual age and size classes of the broadleaved and ash tree populations. Definitions of terms used in this report can be found in the Glossary at the end of this report.

Key Findings

- The estimated stocked area of broadleaves within Great Britain is 1.3 million hectares of which 142 thousand hectares is ash, or 11% of all broadleaves and 5% of all species (both conifer and broadleaves).
- There are approximately 1.4 billion broadleaved trees in British woodlands of over 0.5 hectares, of which ash trees are estimated to number 126 million.
- In addition, there are an estimated 4.2 billion broadleaved seedlings and saplings in British private sector woodlands, of which ash constitutes an estimated 39%.
- Total broadleaved standing volume in all woodlands of over 0.5 hectares in Great Britain is estimated to be 240 million m³ obs. For England the estimate is 182 million m³; for Scotland 34 million m³; and for Wales 24 million m³.
- Total broadleaved standing volume on the private sector estate is estimated to be 227 million m³ and for the Forestry Commission estate is estimated to be 13 million m³.
- Ash accounts for approximately 14% of total broadleaved standing volume in Great Britain.
- Ash tends to be younger and marginally smaller than broadleaved species as a whole:
 - Trees aged between 20 and 100 years account for most broadleaved standing volume; while for ash very little is over 80 years of age.
 - Most broadleaved standing volume is contained within stands of trees ranging from 10-60 cm mean diameter at breast height (dbh), while for ash standing volume is mostly found in stands with lower mean dbh.

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Introduction

National forest inventories are carried out by the Forestry Commission (FC) to provide accurate, up-to-date information about the size, distribution, composition and condition of the forests and woodlands in Great Britain (GB). In this report forests and woodlands are defined as land predominately covered in trees with a minimum area of 0.5 hectares and minimum width of 20 metres. (See the Glossary for a fuller definition.) This information is essential for developing and monitoring policies and guidance to support sustainable forest management. The current National Forest Inventory (NFI), which began in 2009 (the first cycle is due for completion in 2014), is a multi-purpose operation that has involved the production of a forest and woodland map for GB and a continuing programme of field surveys of the mapped forest and woodland areas. Information and data collected by the National Forest Inventory will be used for a number of purposes, including current estimates and 25-year forecasts of forest metrics such as:

- Standing volume
- Stocked areas
- Numbers of trees
- Timber availability
- Tree growth and increment
- Carbon storage
- Biomass

Estimates of aspects of the biodiversity and social value of forests and woodlands will also be provided by the NFI in future reports. Further information on this and other National Forest Inventory outputs is available from www.forestry.gov.uk/inventory.

It was planned for estimates of stocked area and standing volume of broadleaved species to be published in 2013 by NFI; however, with the advent of the *Chalara fraxinea* outbreak it has been decided to publish preliminary results for broadleaves based upon the survey to date, to enable estimates of quantities of ash to be assessed in the context of broadleaved species as a whole.

Description of metrics estimated

Stocked area

The NFI woodland map provides information on the spatial location and extent of woodland. Summing the areas of woodland defined in the map will provide a gross estimate of woodland areas in GB, countries and regions. The NFI reports on woodland area statistics published in May 2011 www.forestry.gov.uk/forestry/infd-8eyjwf give an estimated total area of woodland of 2.98 million hectares, derived from the 2010 version of the NFI woodland map. This was an estimate of gross forest area, and included clearfell sites, assumed woodland area (according to grant scheme records), and integral areas of open space of less than 0.5 hectares.

Estimates of stocked area represent the area of woodland currently covered by trees of the relevant species or group of species. Total stocked area across all species (inclusive of both conifer and broadleaves) will therefore differ from total woodland area as estimated from the woodland map, since it will not include current areas of clearfell and most areas of open space of less than 0.5 hectares. On the other hand, it may include estimates derived from areas of woodland located outside the NFI woodland map.

Care needs to be taken in the interpretation of stocked areas of individual species, since many woodlands contain an intimate mix of species, and in such cases procedures are used to “share” the total area covered by the woodland into the areas occupied by its constituent species. The total stocked area of a given species does not therefore conceptually represent discrete areas of land covered by pure stands of the species, but to a greater or lesser extent may represent the sum of shares of areas of mixed woodland allocated to it by these procedures.

Standing broadleaved volume

The last direct estimate of standing broadleaved volume in GB was published in 1982 (Forestry Commission Bulletin 63: Census of woodland and trees). This present report, in addition to providing the latest overall estimates of total volume, gives a breakdown of volume by species group, age class and size class, and by country and National Forest Inventory regions. NFI region boundaries can be seen on Map 1.

A forecast of future broadleaved growth, timber availability and standing broadleaved volumes from GB forests is planned to be published in the second half of 2013.

Standing broadleaved volume is defined as the live stemwood and useable branchwood of broadleaves to a minimum of 7 cm top diameter. It excludes roots, below-ground stump material, small branches, foliage and deadwood. For private sector woodland

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only, it also excludes standing volume in trees in woodlands of less than 0.5 hectares in extent. See the Glossary for further explanations of the terms used in this report.

Numbers of trees

Estimates are provided in this report of the current numbers of live broadleaved and ash trees in GB woodland. In order to compile such estimates, a minimum tree size needs to be defined. Due to the nature of the data available on the two forest sectors in GB, the estimates for FC woodland and private sector woodland in this report differ with respect to these cut-off sizes. For the private sector, a live tree is considered countable once it has grown to a size at which its diameter at breast height (dbh – see the Glossary) has reached at least 4 centimetres, while for the FC estate, the estimates represent trees that have achieved a minimum size of 7 centimetres dbh. Therefore, for the FC estate, the estimated numbers do not include trees in the size range of 4-6 cm dbh. Windblown trees are included in these estimates, but not standing dead trees. It may be noted that broadleaves on the FC estate are a relatively minor proportion of all broadleaves in GB, so the missing estimated count of trees in the size range of 4-6 centimetres dbh is unlikely to be a large proportion of the totals across both sectors.

For the private sector only, this report also provides preliminary estimates of numbers of saplings and seedlings of all broadleaved species and of ash. Seedlings are defined as young trees of up to 0.5 metres in height and saplings are defined as young trees of at least 0.5 metres in height but less than 4 centimetres dbh. The estimates provided in this report cover numbers of such plants found on non-FC land that is mapped as woodland in the 2011 NFI woodland map.

Note that for the purposes of this report, measurable stems arising from coppice stools are counted as separate trees when calculating the estimated tree numbers. The use of this definition varies from the convention of regarding a single coppice stool with many measurable stems as a single tree. This will not impact upon the stocked area and standing volume estimates, but will affect the estimates of tree numbers for those species that tend to be coppiced, such as sweet chestnut and hazel.

For information on the amount and distribution of ash trees outside NFI woodland see the Countryside Survey Report (Distribution of ash trees (*Fraxinus excelsior*) in Countryside Survey data) at <http://www.countrysidesurvey.org.uk/>. This report includes small copses of less than 0.5 hectares, linear features containing trees less than 5 metres in width (including hedgerows and lines of trees) and individual trees (including some veterans). The extent of the top ten broadleaved tree species, including ash, in copses less than 0.5 ha is included in the Countryside Survey report.

Data sources

Forestry Commission sub-compartment database

The Sub-compartment database (SCDB) is a record of all land managed by the Forestry Commission. Each stand of trees is represented spatially, together with information on individual stand characteristics (for example species, planting year, spacing and yield class) which is periodically updated. As new surveys of stands are conducted (e.g. for operational purposes), survey results are also recorded against the stands. In addition, the SCDB contains details of how the stands are being managed – in particular, the planned frequency and type of thinning operations and a 'due date' for felling.

National Forest Inventory

The National Forest Inventory is composed of two elements: a woodland map and a field survey. The woodland map covers all forests and woodlands over 0.5 hectares with a minimum of 20% canopy cover (or the potential to achieve it), including new planting, clearfelled sites and restocked sites. It is based upon 25 cm resolution colour aerial photography for England and Scotland and 40 cm resolution aerial photography for Wales. The map was validated and updated using satellite imagery (available up to 2009), which gave an independent crosscheck of woodland present. Satellite imagery was also used to identify areas of recently felled forests and woodland.

Field survey work is used to refine the map-based estimates of woodland and clearfelled areas and to measure detailed aspects of the forest. Field surveys are being carried out between 2009 and 2014 to estimate standing volume, stocked areas, numbers of trees and other forest metrics. This involves the ground surveying of one-hectare sample squares that are partially or entirely covered by forest, including clearfelled areas and areas of assumed woodland, according to the 2010 NFI woodland map. Further details of the mapping work and the derivation of forested areas can be found in the 2010 Woodland Area reports at www.forestry.gov.uk/inventory.

Derivation of estimates

The estimates in this report have been derived separately for the Forestry Commission estate and for the private sector estate. They are based on the same principles but use different data sources. For the Forestry Commission estate, information on woodland area and woodland characteristics has been extracted from the Forestry Commission's long-established Sub-compartment database. For the private sector estate, the estimates have been derived from results obtained to date from the National Forest Inventory.

Estimates for the Forestry Commission estate

Information from the SCDB was used to estimate standing volume, stocked areas and numbers of trees at the reference date of 31 March 2011 on a stand-by-stand basis. These were then aggregated to produce the estimated totals across a defined geographic area for particular types of stand (classified, for example, by species, tree age or tree size class). For each stand, if an operational survey had been carried out close to the reference date, information from that survey was used to estimate the current state of the stand. Otherwise, projected estimates were made of the current state, normally involving the application of standard Forestry Commission growth and yield models that take into account the past management of the stand. Estimates of current standing volume, stocked areas and numbers of trees of greater than or equal to 7 cm dbh are outputs of this stand modelling process.

Individual stand records in the SCDB express areas and other stand characteristics in terms of gross forested areas, including unstocked areas occupied by roads, rides, integral open space and other small non-forested features within the mapped area of the stand. In order to account for this, a gross to net area conversion factor (usually 15%) is applied to the area of the stand and, through this, to the derived stand characteristics, including standing volumes, stocked areas and numbers of trees.

Because the resulting estimates are based on a full record of data from the SCDB, there is no sampling error involved in the estimation process, therefore no sampling standard error is calculated. However, the nature of the estimation process within each individual stand does introduce estimation error, with variable contributions from stand to stand, due to the type, age and accuracy of the information held in the SCDB. These estimation errors have not been quantified in this report.

Estimates for the Private Sector estate

Forests on the National Forest Inventory woodland map were first separated into Forestry Commission estate and private sector estate holdings using Forestry

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Commission spatial records of management boundaries. Estimates of standing volume, stocked areas and numbers of trees on the private sector estate used a woodland area obtained from the map updated to 31 March 2011. This map contains a larger area (around 2.2 million hectares) of private sector woodland than has been estimated by previous forest inventories.

For the field survey work, initial effort was directed towards private sector sites that, according to the map, mostly contained areas of coniferous woodland. However, due to the mixed nature of woodlands, a large body of broadleaved data was also collected as a consequence of this process. Additionally, for the purpose of operational efficiency in the field survey operation, sites on private sector land that, according to the NFI woodland map, contained areas of broadleaved woodland, were also surveyed through this period. As a result, 2 971 sample squares were surveyed that contained broadleaved species on private sector woodland and the resulting data were used to produce the results in this report. The sample squares used in these estimates represent a sub-sample of a planned 15 000 statistically representative squares covering all GB woodland that will be surveyed during this first cycle of the National Forest Inventory survey (due for completion in 2014). The updated report planned for release in 2013 is expected to be based on results from 8 000 sample squares covering both conifer and broadleaved mapped areas and will enable the production of more precise estimates using a more balanced and representative sample of private sector broadleaved woodland.

At each sample square, the forest was stratified into different woodland types or stands, where information on species, age, management and a range of other parameters was collected. An average of around two stands per square was found, resulting in 5 453 stands containing broadleaves on private sector woodland being assessed. Within each stand, the most common survey procedure used field-based computer systems to locate two or three 100 m² (0.01 hectare) circular plots, within which all trees of greater than or equal to 4 cm diameter at breast height (dbh) were mapped, species identified, diameters measured and heights and crown dimensions of a sample of trees were measured and recorded. Results from the sample plots were scaled up to provide estimated characteristics of the whole stand. These estimated characteristics included, for each individual species present in the stand, the standing volume, stocked area, and number of trees. In a minority of cases, stand estimates were based on visual rather than on measured assessments, and in some cases the whole stand was assessed, rather than that part falling within sample plots. Full details of the field sampling procedures used can be found in the NFI Field Survey Manual www.forestry.gov.uk/forestry/infd-8rbp8t.

A total of 106 070 broadleaved trees in private sector woodland were measured for dbh, and from subsets of these, 28 240 heights and 19 480 crown diameters were also measured. The resulting data, along with visual assessments on individual stands, were

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used to derive the estimates for private sector broadleaved woodland contained in this report.

All squares were marked on the ground with metal pegs and GPS data of their location was recorded for checking and future measurement. At least 7% were re-measured by an independent quality assurance team to ensure standards. Further details of the methodology can be found in technical documentation published on the NFI website www.forestry.gov.uk/forestry/inf-d-8rbp8t.

The results for individual surveyed squares were aggregated and scaled up to the areas identified by the 2011 NFI woodland map, using standard statistical survey methodology, to produce the estimates in this report. This included scaling up results for woodland found within the sample squares in areas of the square adjacent to but outside the areas identified as woodland on the NFI woodland map. Along with these estimates, associated sampling standard errors have also been calculated and reported. The sampling standard error will account for random variation arising from the selection of the sample, and random measurement errors, but not from any systematic biases in the field measurements. However, because of the quality assurance process it is thought unlikely that any substantial biases of this nature are present in the survey data. The sources of error that are not accounted for in the reported standard errors will be those deriving from use of empirical models to estimate standing volumes from the recorded survey data and, in some cases, the use of Forestry Commission growth and yield models, where these are used to project the results from an earlier survey assessment date to 31 March 2011 – the reference date used for the estimates in this report.

In addition to the sampling procedures used to quantify the forest metrics for trees of greater than or equal to 4 centimetres dbh, in all accessible stands a line transect sample of ten metres in length was randomly located in each stand. Along this line transect, numbers of seedlings classified by species found within 0.5 metres distance from the transect line, and numbers of saplings, also classified by species, within one metre of the transect line, were observed and recorded. These observations have been scaled up to provide estimates of numbers of seedlings and saplings present in each surveyed stand, and these in turn have been scaled up to total forest areas in the NFI map to provide the estimated numbers of seedlings and saplings present in private sector woodland that are quoted in this report.

Results

As an introduction to the information in this report on the distribution and extent of ash in British woodlands, four maps are first provided to show aspects of the present spatial distribution of the species and its potential distribution. Map 1 gives the proportion of ash found within all woodlands within each National Forest Inventory region. Map 2 shows the mean amount of ash found within three woodland types identified within the National Forestry Inventory map; broadleaved, conifer and young trees. Map 3 shows the proportion of ash found within the upper canopy of each 1 hectare National Forest Inventory sample square. The size of the squares has been exaggerated for thematic purposes.

Map 4 shows the areas of Great Britain that are assessed as suitable for growth of ash according to the Ecological Site Classification (ESC) model*. This uses site values of four climatic variables (temperature, moisture deficit, windiness and continentality), soil moisture and soil nutrient regimes. The assessment of site suitability for ash shown in Map 4 uses estimated values of each of these conditions together with information on slope form.

These maps show the relatively high prevalence of ash in woodlands in the southern part of Great Britain, with high concentrations in the south of England, and also a strong belt of ash running through the English midlands. Ash is also present, but in lower concentrations, in Wales and in East England, but becomes less prevalent as a component of woodlands in the more northern part of Great Britain. The proportion of ash as a component of woodland becomes lower in the northern regions of England and declines still further into and through Scotland, becoming only a very small component of woodland in North Scotland. A similar pattern can be seen in the potential distribution of ash according to the ESC model (Map 4), but with some noticeable variations from the patterns in Maps 1 to 3.

The maps are followed by the main results of the report, presented in both tabular and graphical form. In most tables, estimates are presented separately for the Forestry Commission and the private sector, and for the total across both sectors. Estimates for the private sector are shown with associated sampling standard errors deriving from the sample used in the NFI field survey.

The first main sub-section of this Results section provides details of the results for broadleaves as a whole. Tables and Figures 1 to 3 provide summaries by country and NFI region of the three quantities analysed in this report, being stocked area, standing

* Details of the ESC system can be found in "An Ecological Site Classification for Forestry in Great Britain: Bulletin 124" by D.G. Pyatt, D. Ray and J. Fletcher (2001), Forestry Commission, Edinburgh.

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volume and number of trees respectively. Tables and Figures 4 to 12 then provide separate breakdowns of each of these quantities at a country and GB level into values for principal groups of broadleaved species, into values within age ranges of trees across all broadleaved species, and into size classes, based on mean stand dbh, also across all broadleaved species.

The second sub-section then concentrates on estimates for ash. Tables and Figures 13 to 15 provide summaries by country and NFI region of estimates of total quantities of ash in terms of stocked area, standing volume and number of trees. These estimates are also expressed as percentages within each country and NFI region of all broadleaves and of all species. Tables and Figures 16 to 21 provide separate breakdowns of each of these quantities at a country and GB level into values within age ranges and within size classes, with the latter based on mean stand dbh.

Finally, Table 22 provides estimates of the number of seedlings and saplings of all broadleaved species and of ash in private sector woodland at a country and GB level. The estimates for ash are expressed in absolute terms and as percentages of numbers of all broadleaves.

Equivalent tables and figures at an NFI region level to those in Tables and Figures 4 to 12 at the country and GB level, covering breakdowns of broadleaves estimates, can be found in Appendix A, in Tables and Figures A.1 to A.9. Similar breakdowns at NFI region level to Tables and Figures 16 to 21 at the country and GB level (for ash) can also be found in Appendix A in Tables and Figures A.10 to A.15. It should be noted that some of the estimates of private sector broadleaves and ash at NFI region level have high relative standard errors. Particularly high standard errors indicate very low precision of the estimates they relate to. When this is the case, the private sector estimates to which these standard errors relate, and the estimates of the total across both sectors that incorporate these private sector estimates, should be used with caution.

The list of principal species used in the breakdown of all broadleaves into species groups represent the 'top ten' species as determined by relative stocked area at a British level. All species that represent over 1% of broadleaved stocked area are within this set and all species that represent less than 1% of broadleaved stocked area are categorised as 'other broadleaves'. For some of the principal species, several sub species of the same genus have been grouped together for reporting purposes. A full list of the species identified within the National Forest Inventory and how these have been grouped within these results can be found in Appendix B.

The figures in the tables have been independently rounded, so may not add to the totals shown. Sampling standard errors (SE) attached to private sector estimates are expressed in relative terms (%) to the right of the relevant estimate.

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As noted in the description of stocked areas, many individual woods and stands within woods are composed of trees of many species, ages and sizes. Such mixed populations within individual stands have been stratified, characterised and aggregated prior to analysis and presentation in the separate categories presented. The results as presented may give the impression of woodlands that are physically sub-divided into stands of even age and species, whereas in reality most broadleaved woods form a much more complex structure. The final report, due for publication in 2013, will provide some metrics to quantify such complexity and within stand variation, such as types of species mixture, storey structure and within stand age class structure.

This structure of woodlands has particular implications with regard to reported size classes. For reporting broadleaved and ash woodlands broken down into separate size classes, the mean dbh of the stand (or component of a stand) has been used to classify the whole stand or component. Very often, there will be a wide range of values of dbh for individual trees within such components, so a single value of mean dbh will not properly characterise the distribution of tree sizes within the component. For this reason, although the breakdown of a tree population by mean dbh class might be used as a proxy for the distribution of individual sizes of trees, it will not always follow that the distribution of individual tree sizes in the same population will exactly follow this pattern.

There will also be a similar, but less pronounced, effect of this sort in the classification of tree populations into age classes. In some instances, a component of trees will have been assigned a single planting year (which determines age at the reference date of 31 March 2011) but the individual trees within the component, particularly if they have been established from natural regeneration, may have originally established themselves over a range of years. However, of greater importance in the interpretation of the reported age class distributions is that planting years and ages of stands in NFI (but less so in SCDB data) are mainly those that have been estimated by the surveyor at the time of assessment of the stand. These surveyor assessments have been statistically adjusted, using information on actual planting years retrieved for a sample of stands, but these adjusted estimates of age can still vary considerably from actual stand age. This should therefore be borne in mind in the interpretation of the age class distributions reported in these results.

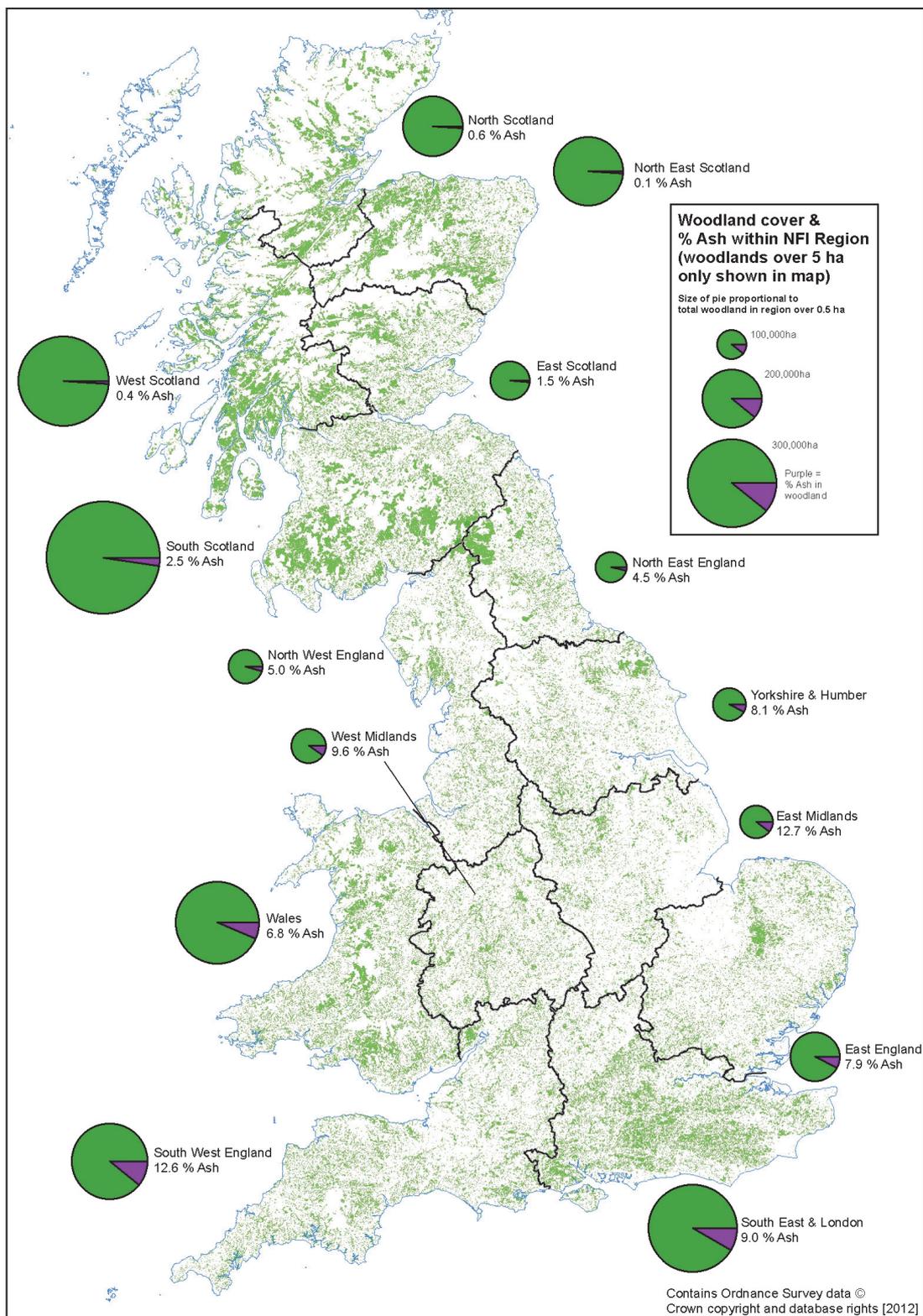
In the breakdowns of numbers of trees by dbh class and by age class, the estimates relate only to counts of trees of **measurable** size (4 cm dbh for the private sector and 7 cm dbh for the FC estate). In the smallest mean dbh class of 0-7 centimetres the estimated numbers are consequently low (but mostly non-zero, because stands with a mean dbh of 7 cm or less may still have some trees within them of at least 7 cm dbh). Also, for the youngest age class of 0-10 years old there are often few trees that will have

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reached these minimum sizes. For the private sector, the estimates of numbers of seedlings and saplings reported in Table 22 give an indication of the scale of the total number of trees of smaller sizes. If these were included in the main tables of numbers of trees they would fall almost entirely within the 0-7 cm dbh size class and mostly within the 0-10 year age class.

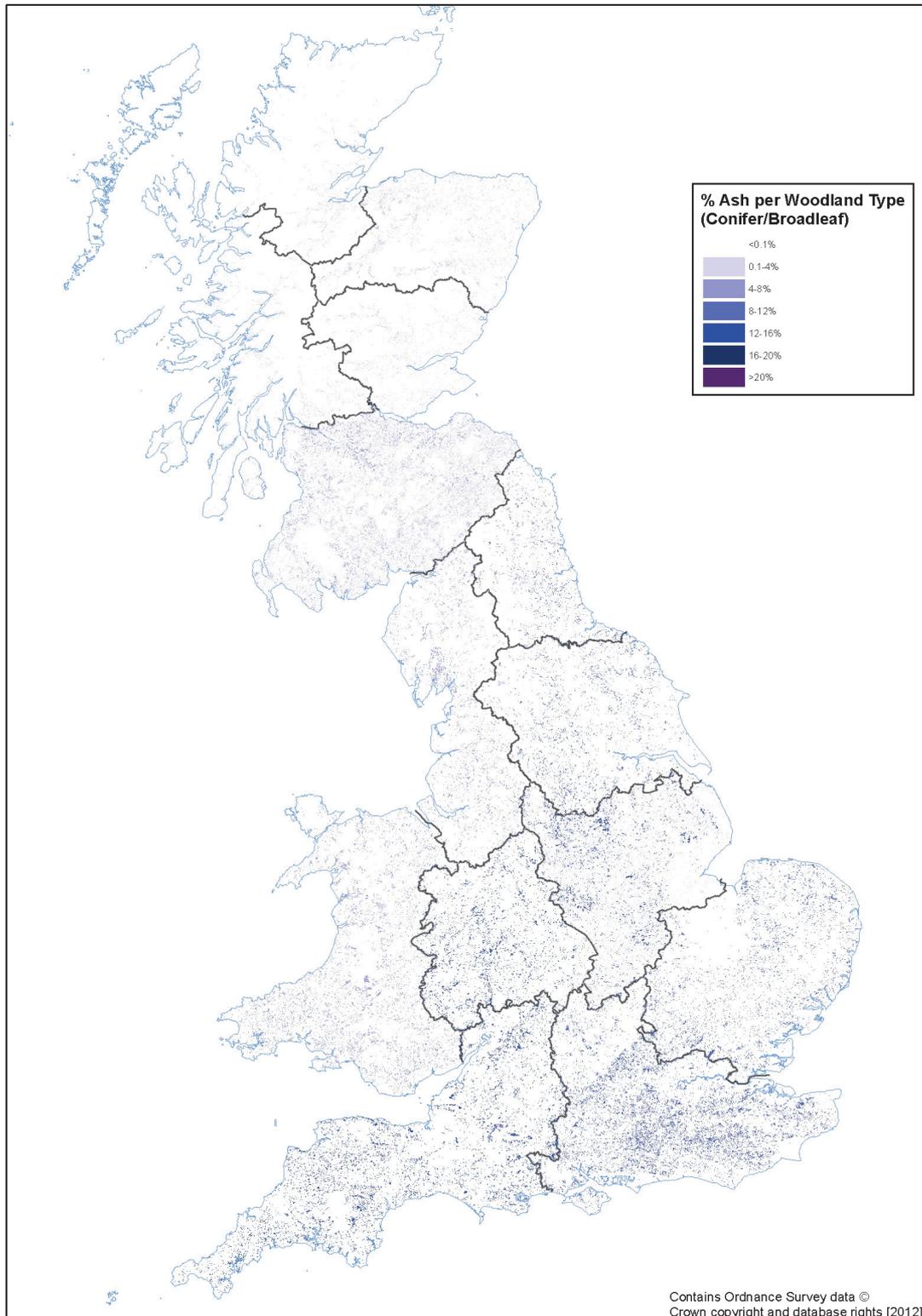
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Map 1 Total woodland cover with proportion of ash by NFI region

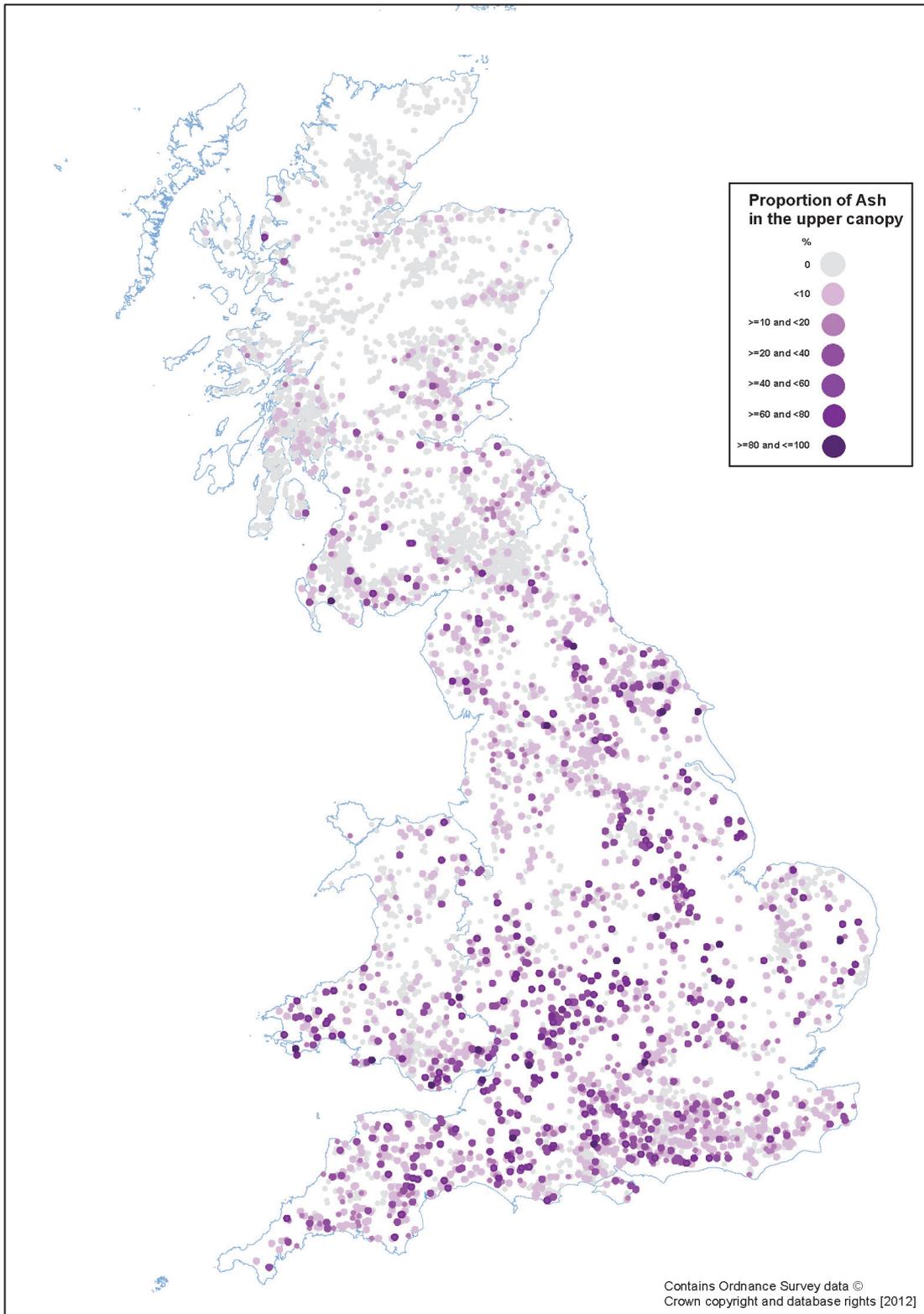


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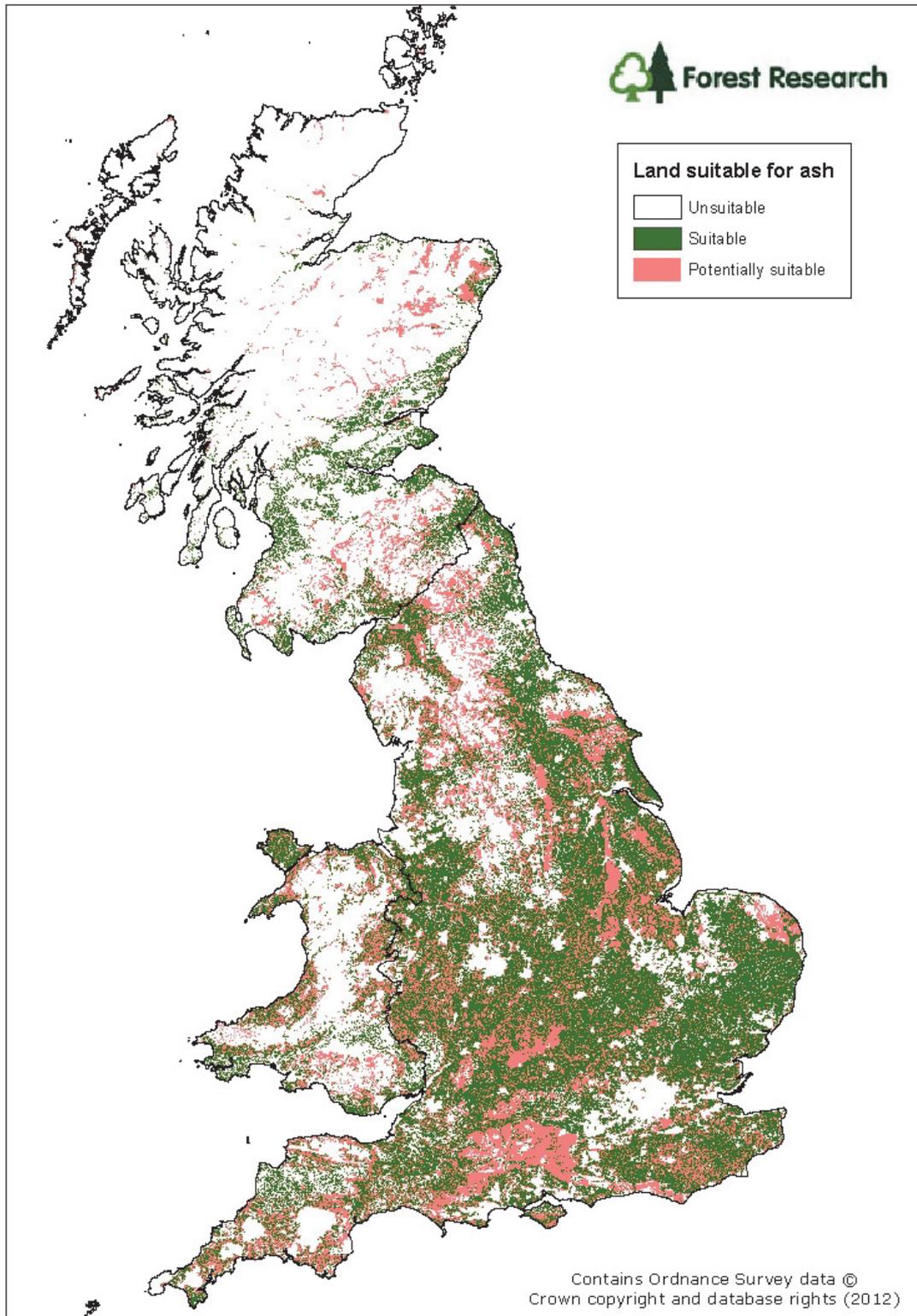
Map 2 Ash distribution (based upon % of ash per region by woodland type)



Map 3 Proportion of ash within the upper canopy of each NFI sample plot



Map 4 Ecological Site Classification (ESC) of land suitable for ash trees



Broadleaves

Figure 1 Stocked area of all broadleaved species by ownership and NFI regions

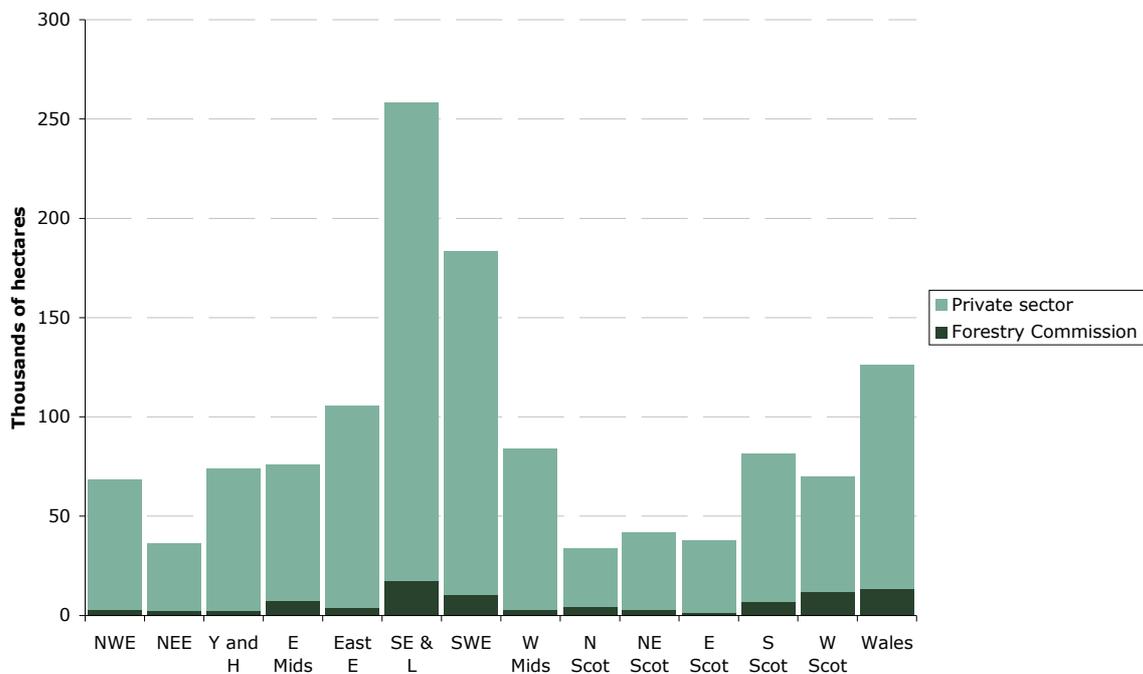


Table 1 Summary of stocked area of all broadleaved species for GB, countries and NFI regions

Country/Region	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
England	50.0	835.8	1	885.8
North West England	2.7	65.6	3	68.3
North East England	2.4	33.8	6	36.2
Yorkshire and Humber	2.7	71.4	3	74.1
East Midlands	7.1	68.8	3	75.8
East England	3.9	101.7	3	105.6
South East and London	17.4	240.8	2	258.3
South West England	10.6	172.7	3	183.3
West Midlands	3.2	80.9	3	84.1
Scotland	27.3	237.5	2	264.9
North Scotland	4.3	29.6	6	33.9
North East Scotland	2.7	39.1	6	41.8
East Scotland	1.6	36.5	4	38.1
South Scotland	6.8	74.5	5	81.4
West Scotland	12.0	57.8	6	69.8
Wales	13.6	112.6	3	126.2
Great Britain	91.0	1,185.9	1	1,276.9

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Figure 2 Standing volume of all broadleaved species by ownership and NFI regions

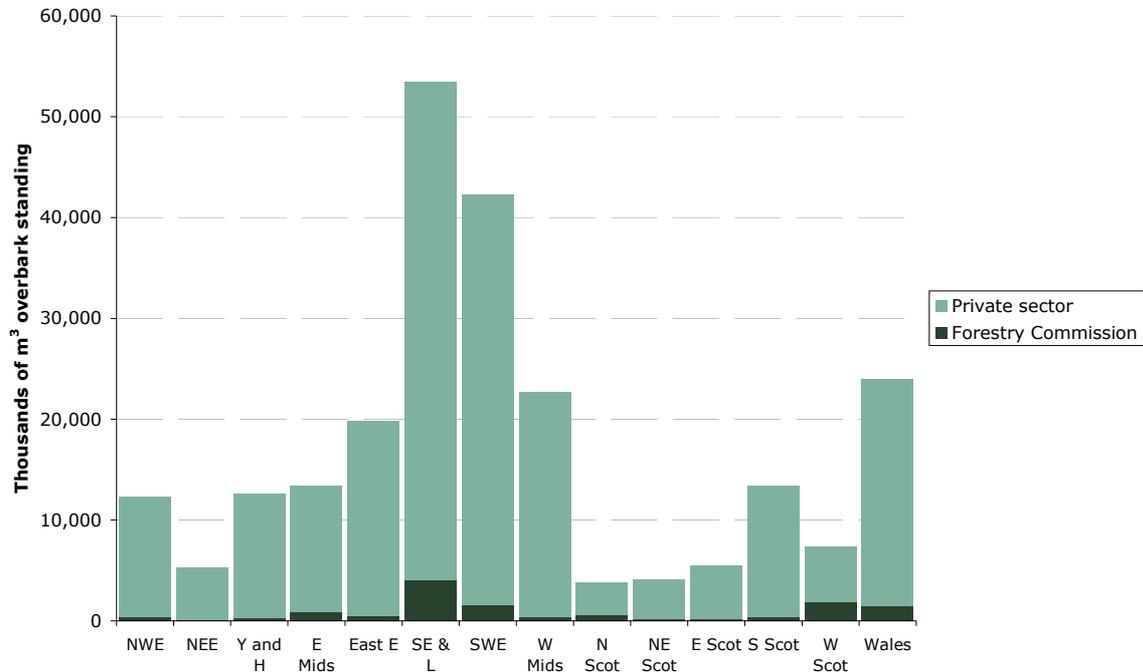


Table 2 Summary of standing volume of all broadleaved species for GB, countries and NFI regions

Country/Region	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
England	8,147	173,619	2	181,766
North West England	346	11,905	8	12,252
North East England	111	5,186	10	5,297
Yorkshire and Humber	286	12,272	6	12,557
East Midlands	913	12,516	8	13,429
East England	525	19,325	7	19,851
South East and London	4,027	49,418	4	53,445
South West England	1,592	40,685	5	42,278
West Midlands	347	22,311	8	22,658
Scotland	3,150	30,896	6	34,046
North Scotland	571	3,217	6	3,788
North East Scotland	221	3,931	11	4,152
East Scotland	173	5,287	10	5,460
South Scotland	354	12,993	11	13,348
West Scotland	1,831	5,467	14	7,298
Wales	1,408	22,545	7	23,953
Great Britain	12,705	227,061	2	239,765

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Figure 3 Numbers of trees of all broadleaved species by ownership and NFI regions

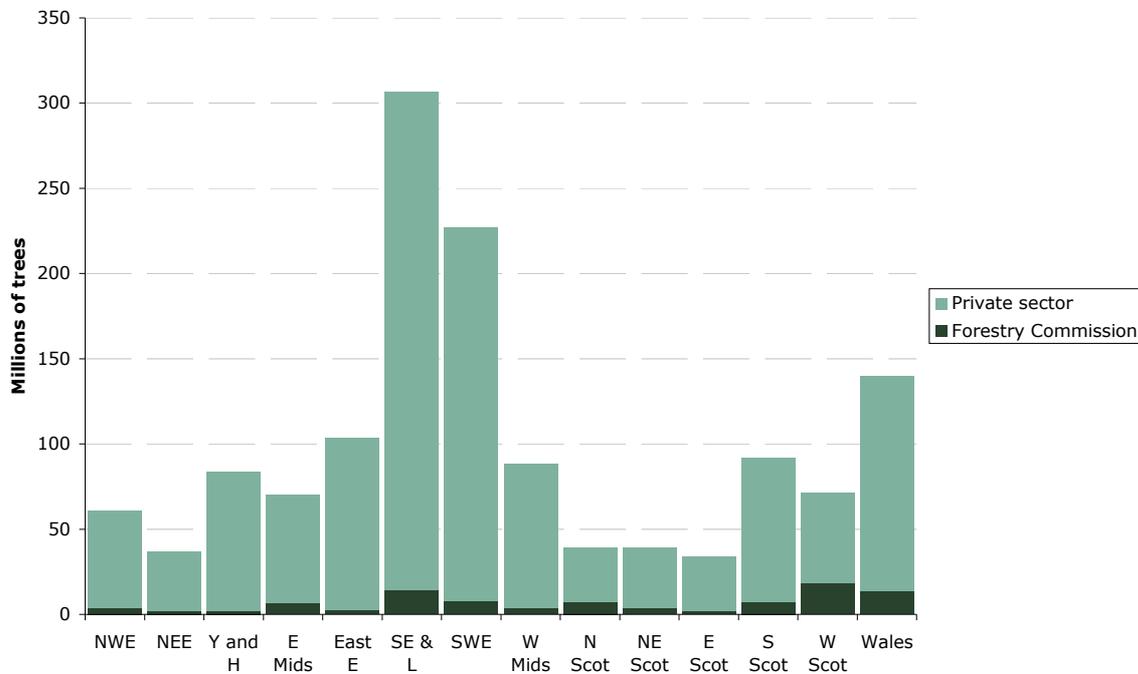


Table 3 Summary of numbers of trees of all broadleaved species for GB, countries and NFI regions

Country/Region	FC	Private sector		Total
	number (millions)	number (millions)	SE%	number (millions)
England	43.2	933.9	2	977.1
North West England	3.6	56.9	7	60.5
North East England	2.0	34.5	11	36.5
Yorkshire and Humber	1.8	81.6	5	83.4
East Midlands	6.7	63.6	8	70.4
East England	2.9	101.0	6	103.8
South East and London	14.4	292.4	4	306.8
South West England	8.0	219.3	4	227.2
West Midlands	3.8	84.6	8	88.4
Scotland	38.5	236.7	4	275.2
North Scotland	7.0	32.0	13	39.1
North East Scotland	3.4	35.7	9	39.2
East Scotland	2.1	31.7	7	33.8
South Scotland	7.7	84.3	8	92.0
West Scotland	18.2	53.0	9	71.2
Wales	13.9	126.1	6	140.0
Great Britain	95.5	1,296.7	2	1,392.3

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Stocked area as at 31 March 2011

Figure 4a Stocked area by principal broadleaved species for GB

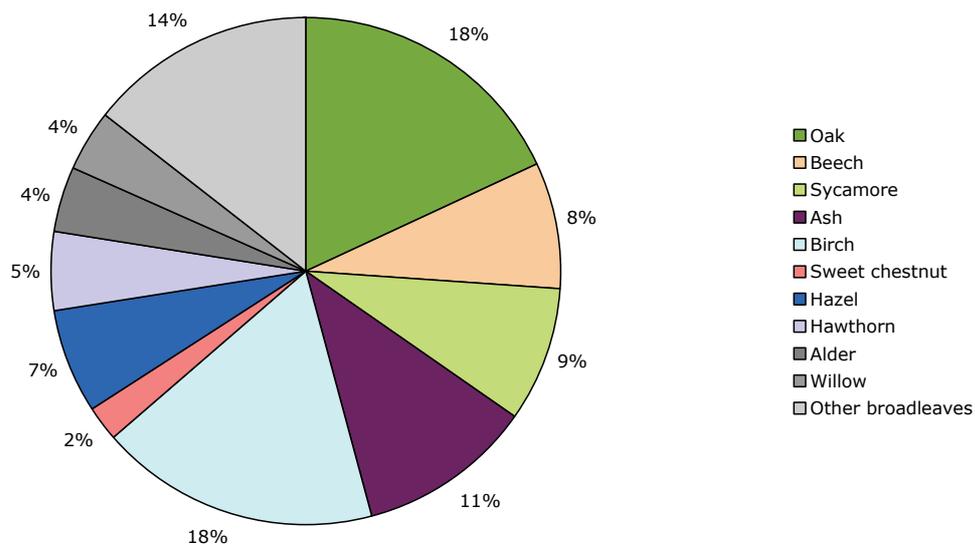
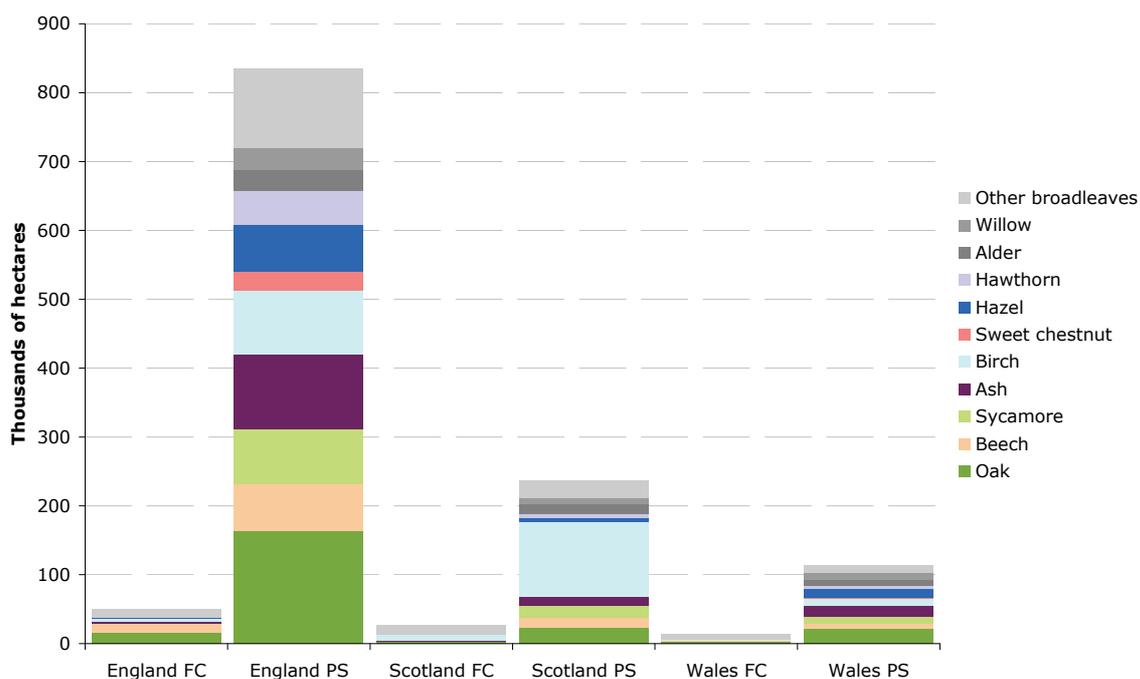


Figure 4b Stocked area by principal broadleaved species for countries



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Table 4 Stocked area by principal broadleaved species for GB and countries

Principal species	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
England				
All broadleaves	50.0	835.8	1	885.8
Oak	15.5	163.0	3	178.5
Beech	12.7	68.0	5	80.7
Sycamore	1.1	80.8	5	81.8
Ash	2.7	107.7	4	110.4
Birch	4.5	93.7	4	98.1
Sweet chestnut	0.8	27.0	9	27.8
Hazel	0.3	68.8	5	69.1
Hawthorn	0.0	49.4	6	49.4
Alder	0.5	29.2	8	29.7
Willow	0.0	33.0	8	33.0
Other broadleave	12.0	115.2	4	127.2
Scotland				
All broadleaves	27.3	237.5	2	264.9
Oak	2.5	24.1	11	26.6
Beech	0.6	13.7	13	14.3
Sycamore	0.3	17.6	15	17.9
Ash	0.4	13.1	12	13.5
Birch	9.2	108.5	4	117.8
Sweet chestnut	0.0	0.0	-	0.0
Hazel	0.2	5.7	20	6.0
Hawthorn	0.0	6.0	21	6.0
Alder	0.6	13.7	13	14.2
Willow	0.0	8.6	11	8.6
Other broadleave	13.5	26.0	8	39.5
Wales				
All broadleaves	13.6	112.6	3	126.2
Oak	2.4	22.5	10	24.9
Beech	1.7	6.1	20	7.8
Sycamore	0.1	9.9	16	9.9
Ash	0.4	17.2	11	17.6
Birch	1.1	10.3	13	11.4
Sweet chestnut	0.0	0.4	77	0.5
Hazel	0.0	12.8	13	12.8
Hawthorn	0.0	5.4	20	5.4
Alder	0.1	9.0	15	9.1
Willow	0.0	8.9	17	8.9
Other broadleave	7.8	10.4	13	18.2
Great Britain				
All broadleaves	91.0	1,185.9	1	1,276.9
Oak	20.4	209.6	3	230.0
Beech	14.9	87.8	5	102.7
Sycamore	1.5	108.2	4	109.6
Ash	3.5	138.1	3	141.6
Birch	14.8	212.5	3	227.3
Sweet chestnut	0.8	27.4	9	28.2
Hazel	0.6	87.3	5	87.9
Hawthorn	0.0	60.8	6	60.8
Alder	1.1	51.9	6	53.1
Willow	0.0	50.5	6	50.5
Other broadleave	33.3	151.6	3	184.9

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Figure 5a Stocked area by age class of all broadleaved species for GB

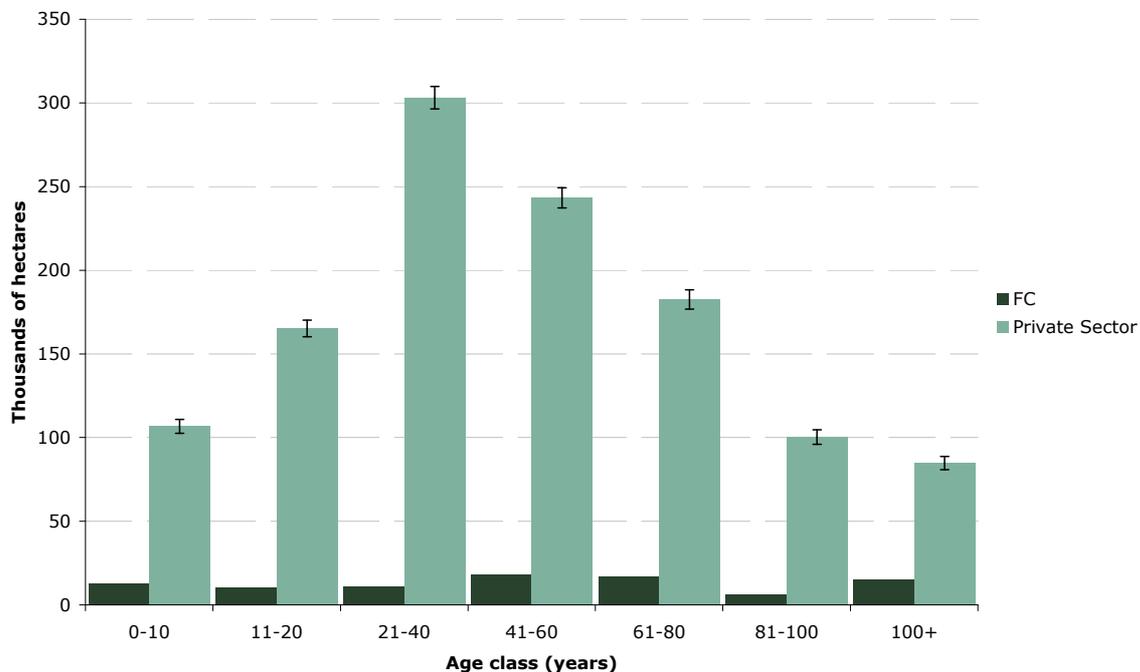
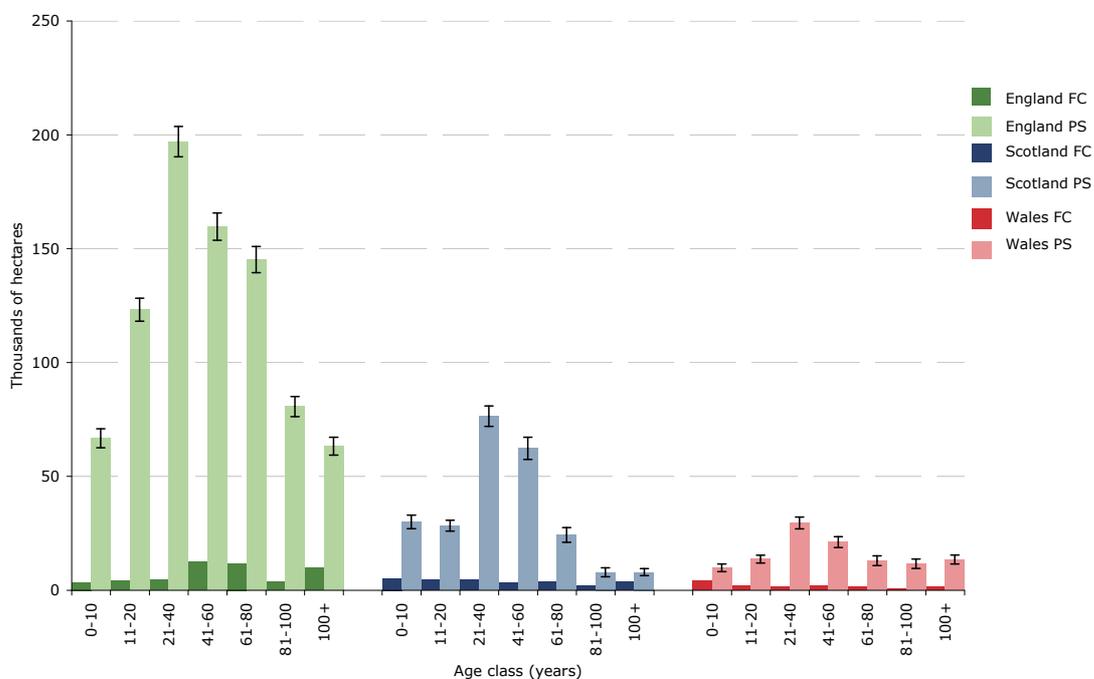


Figure 5b Stocked area by age class of all broadleaved species for countries



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Table 5 Stocked area by age class of all broadleaved species for GB and countries

Age class (years)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	(000 ha)
England				
0-10	3.5	66.8	6	70.3
11-20	4.0	123.2	4	127.2
21-40	4.7	197.0	3	201.8
41-60	12.3	159.7	4	172.0
61-80	11.9	145.2	4	157.1
81-100	3.7	80.7	5	84.4
100+	9.9	63.2	6	73.1
Total	50.0	835.8	1	885.8
Scotland				
0-10	5.3	30.0	10	35.3
11-20	4.5	28.4	9	32.9
21-40	4.5	76.5	6	81.0
41-60	3.4	62.4	8	65.8
61-80	3.7	24.3	13	28.0
81-100	1.9	8.0	25	9.9
100+	4.0	8.0	20	12.0
Total	27.3	237.5	2	264.9
Wales				
0-10	4.0	9.9	17	13.9
11-20	2.1	13.7	12	15.8
21-40	1.6	29.6	9	31.2
41-60	2.2	21.2	11	23.4
61-80	1.6	13.0	16	14.7
81-100	0.7	11.7	17	12.4
100+	1.4	13.5	15	15.0
Total	13.6	112.6	3	126.2
Great Britain				
0-10	12.8	106.7	5	119.5
11-20	10.6	165.3	4	175.8
21-40	10.9	303.1	3	314.0
41-60	17.9	243.2	3	261.1
61-80	17.2	182.6	4	199.8
81-100	6.3	100.3	5	106.6
100+	15.3	84.8	6	100.0
Total	91.0	1,185.9	1	1,276.9

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Figure 6a Stocked area by mean stand dbh class of all broadleaved species for GB

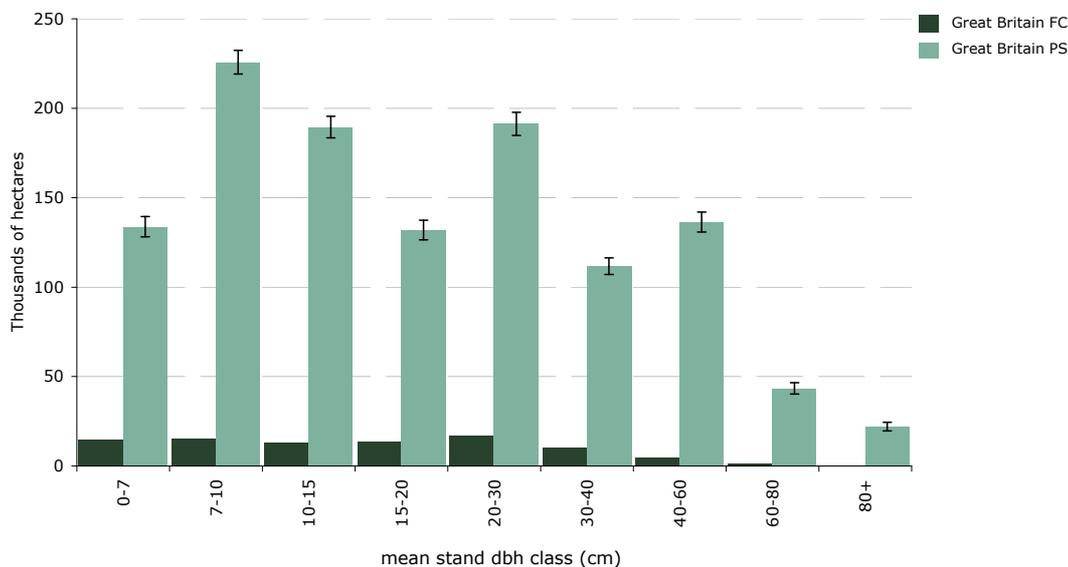
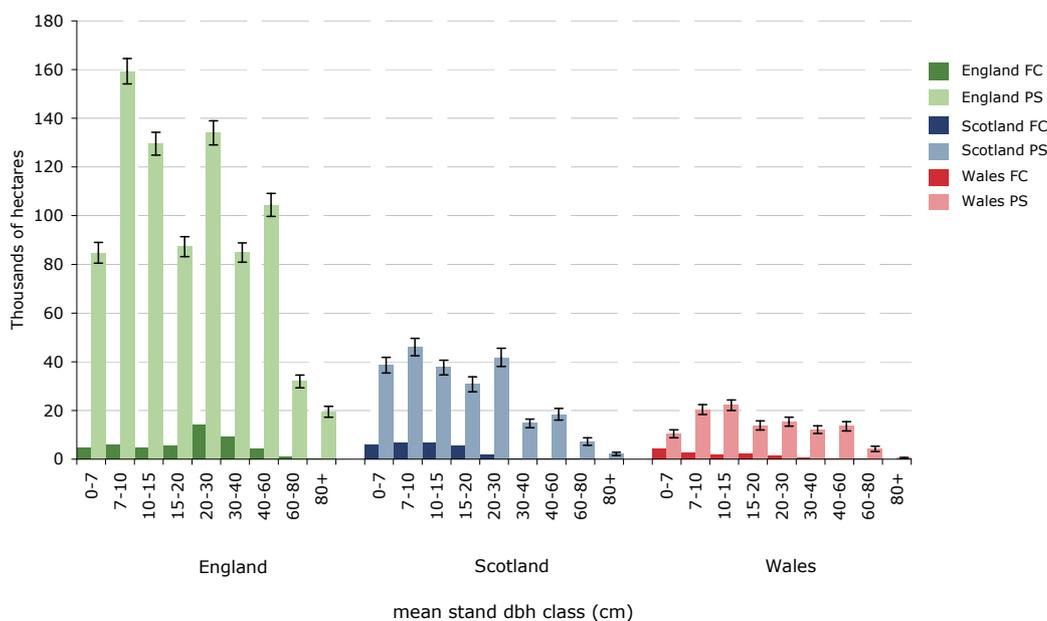


Figure 6b Stocked area by mean stand dbh class of all broadleaved species for countries



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Table 6 Stocked area by mean stand dbh class of all broadleaved species for GB and countries

Mean stand DBH (cm)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
England				
0-7	4.6	84.8	5	89.4
7-10	6.1	159.3	3	165.5
10-15	4.6	129.6	4	134.2
15-20	5.6	87.3	5	92.9
20-30	13.9	134.1	4	148.0
30-40	9.3	84.9	5	94.2
40-60	4.2	104.4	5	108.7
60-80	1.1	32.0	8	33.1
80+	0.4	19.5	12	19.9
Total	50.0	835.8	1	885.8
Scotland				
0-7	6.0	38.6	8	44.7
7-10	6.6	46.1	8	52.7
10-15	6.6	37.7	8	44.3
15-20	5.6	30.8	10	36.4
20-30	1.8	41.8	9	43.6
30-40	0.3	14.7	12	15.0
40-60	0.3	18.4	13	18.7
60-80	0.0	7.3	21	7.3
80+	0.0	2.1	31	2.2
Total	27.3	237.5	2	264.9
Wales				
0-7	4.4	10.4	16	14.8
7-10	2.6	20.4	10	23.0
10-15	2.0	22.1	10	24.1
15-20	2.2	13.9	14	16.1
20-30	1.4	15.4	12	16.8
30-40	0.6	12.2	13	12.7
40-60	0.4	13.5	14	13.9
60-80	0.1	4.2	25	4.3
80+	0.0	0.4	68	0.5
Total	13.6	112.6	3	126.2
Great Britain				
0-7	15.1	133.8	4	148.9
7-10	15.3	225.8	3	241.1
10-15	13.2	189.4	3	202.6
15-20	13.4	132.0	4	145.4
20-30	17.1	191.3	3	208.4
30-40	10.2	111.8	4	122.0
40-60	4.9	136.4	4	141.3
60-80	1.3	43.5	7	44.7
80+	0.4	22.0	11	22.5
Total	91.0	1,185.9	1	1,276.9

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Standing volume as at 31 March 2011

Figure 7a Standing volume by principal broadleaved species for GB

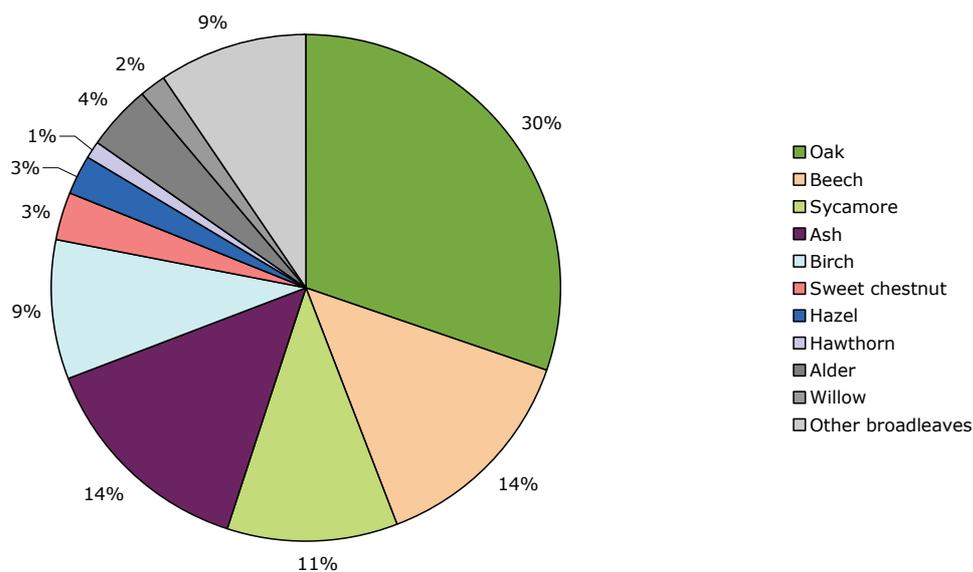
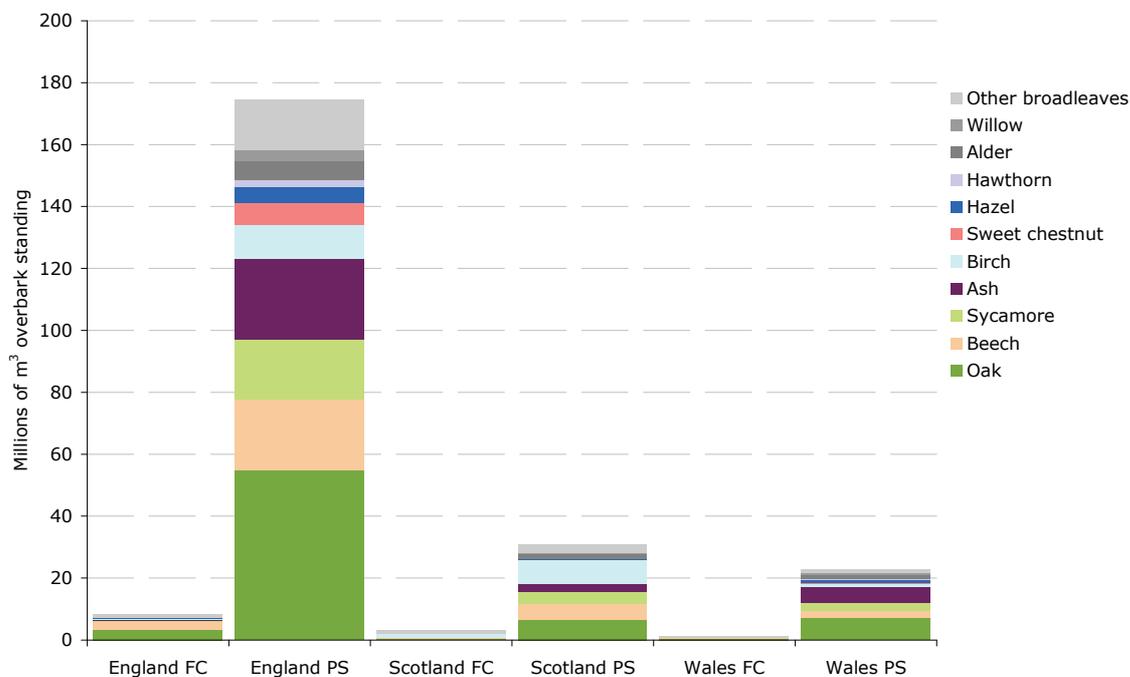


Figure 7b Standing volume by principal broadleaved species for countries



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Table 7 Standing volume by principal broadleaved species for GB and countries

Principal species	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
England				
All broadleaves	8,147	173,619	2	181,766
Oak	3,281	54,886	5	58,167
Beech	2,756	22,796	8	25,551
Sycamore	142	19,577	8	19,719
Ash	366	25,796	5	26,162
Birch	373	11,111	6	11,484
Sweet chestnut	118	7,222	11	7,339
Hazel	34	4,882	8	4,916
Hawthorn	0	2,227	8	2,227
Alder	61	6,178	10	6,239
Willow	0	3,463	12	3,463
Other broadleaf	1,016	16,295	8	17,311
Scotland				
All broadleaves	3,150	30,896	6	34,046
Oak	567	6,481	15	7,047
Beech	126	5,277	18	5,402
Sycamore	36	3,886	31	3,922
Ash	38	2,662	24	2,700
Birch	1,302	7,495	6	8,797
Sweet chestnut	0	0	-	0
Hazel	38	276	22	314
Hawthorn	0	187	23	187
Alder	72	1,686	25	1,758
Willow	0	391	17	392
Other broadleaf	971	2,643	20	3,614
Wales				
All broadleaves	1,408	22,545	7	23,953
Oak	354	7,238	15	7,591
Beech	363	2,312	28	2,675
Sycamore	12	2,641	22	2,653
Ash	61	4,906	17	4,967
Birch	46	1,077	18	1,123
Sweet chestnut	7	283	85	290
Hazel	2	835	21	837
Hawthorn	0	271	25	271
Alder	18	1,633	17	1,650
Willow	0	641	31	641
Other broadleaf	545	982	21	1,527
Great Britain				
All broadleaves	12,705	227,061	2	239,765
Oak	4,201	68,604	4	72,805
Beech	3,244	30,385	7	33,629
Sycamore	190	26,104	7	26,293
Ash	466	33,364	5	33,829
Birch	1,722	19,683	4	21,405
Sweet chestnut	125	7,504	11	7,629
Hazel	75	5,992	7	6,067
Hawthorn	0	2,684	7	2,684
Alder	151	9,496	9	9,647
Willow	0	4,495	11	4,495
Other broadleaf	2,532	19,920	7	22,452

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Figure 8a Standing volume by age class of all broadleaved species for GB

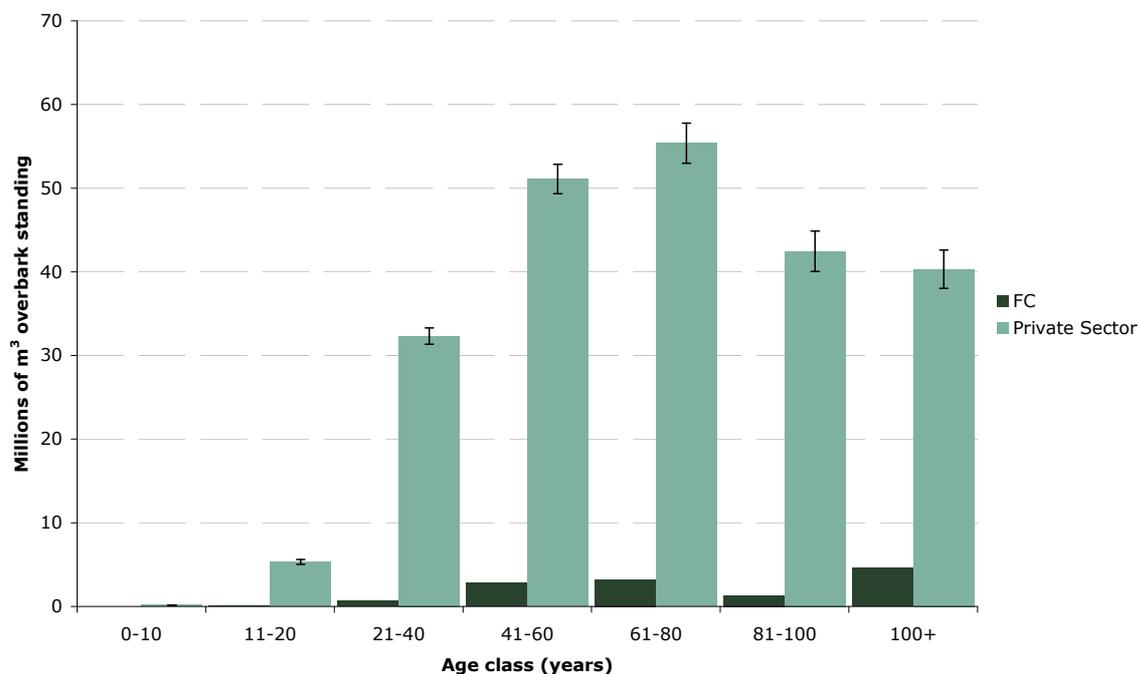
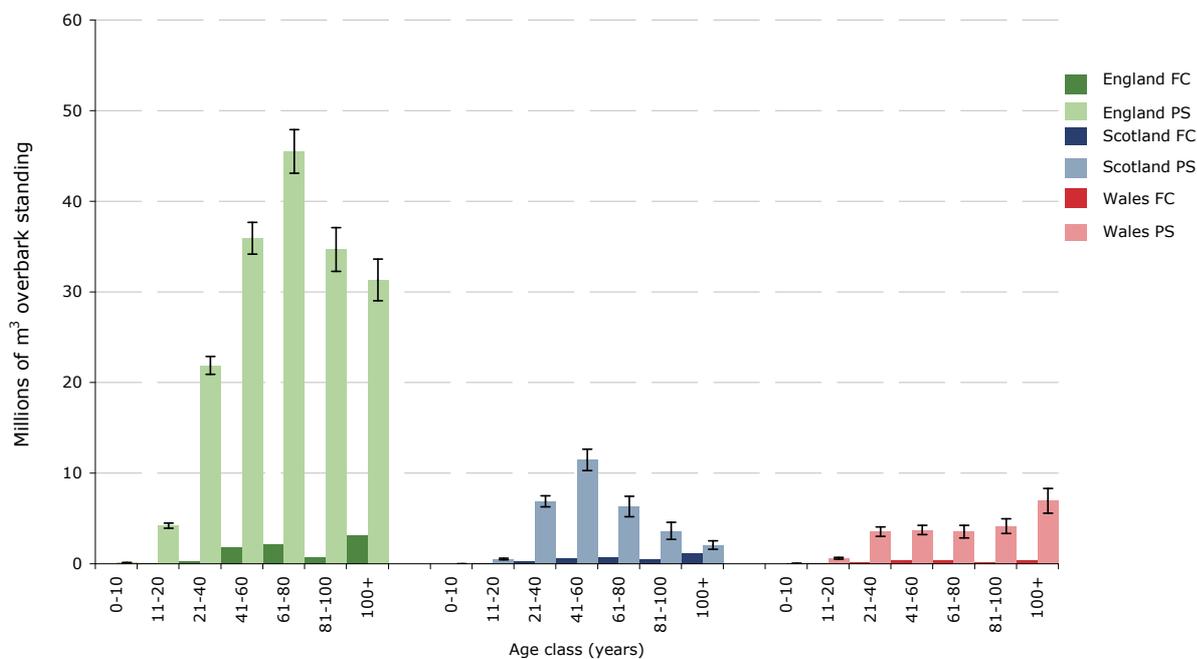


Figure 8b Standing volume by age class of all broadleaved species for countries



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Table 8 Standing volume by age class of all broadleaved species for GB and countries

Age class (years)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
England				
0-10	0	112	29	112
11-20	46	4,210	7	4,256
21-40	296	21,884	4	22,179
41-60	1,827	35,917	5	37,744
61-80	2,158	45,504	5	47,663
81-100	734	34,677	7	35,411
100+	3,086	31,315	7	34,400
Total	8,147	173,619	2	181,766
Scotland				
0-10	0	8	23	8
11-20	43	520	18	563
21-40	272	6,890	9	7,162
41-60	559	11,456	10	12,015
61-80	730	6,328	18	7,058
81-100	427	3,631	26	4,058
100+	1,118	2,063	23	3,181
Total	3,150	30,896	6	34,046
Wales				
0-10	0	28	33	28
11-20	19	599	18	618
21-40	114	3,542	15	3,656
41-60	401	3,728	14	4,129
61-80	335	3,545	20	3,881
81-100	161	4,157	20	4,319
100+	377	6,945	20	7,322
Total	1,408	22,545	7	23,953
Great Britain				
0-10	1	148	22	149
11-20	109	5,329	6	5,438
21-40	681	32,316	4	32,998
41-60	2,786	51,102	4	53,888
61-80	3,223	55,378	5	58,601
81-100	1,323	42,465	6	43,788
100+	4,581	40,322	7	44,904
Total	12,705	227,061	2	239,765

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Figure 9a Standing volume by mean stand dbh class of all broadleaved species for GB

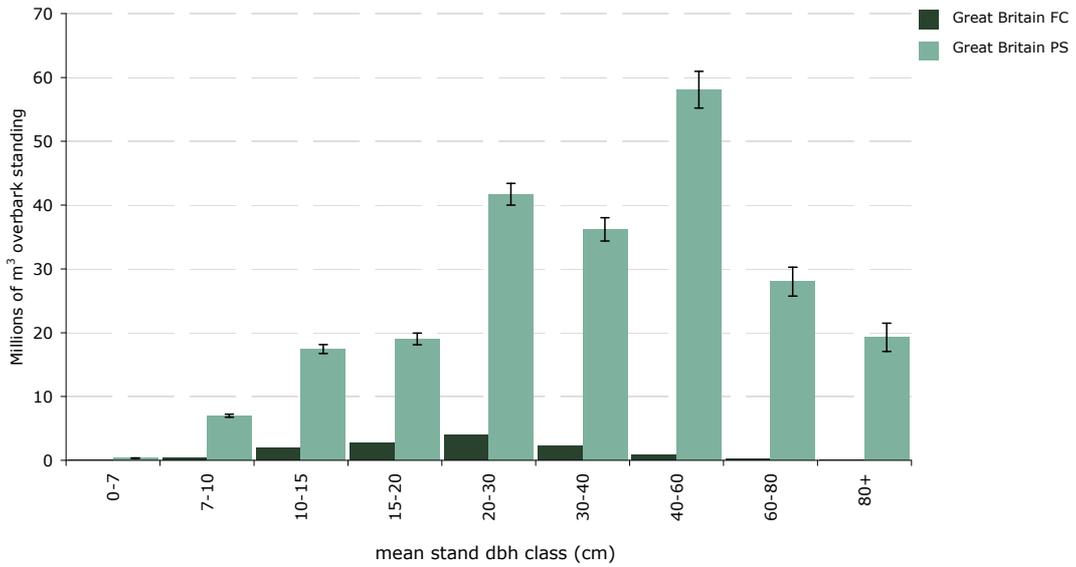
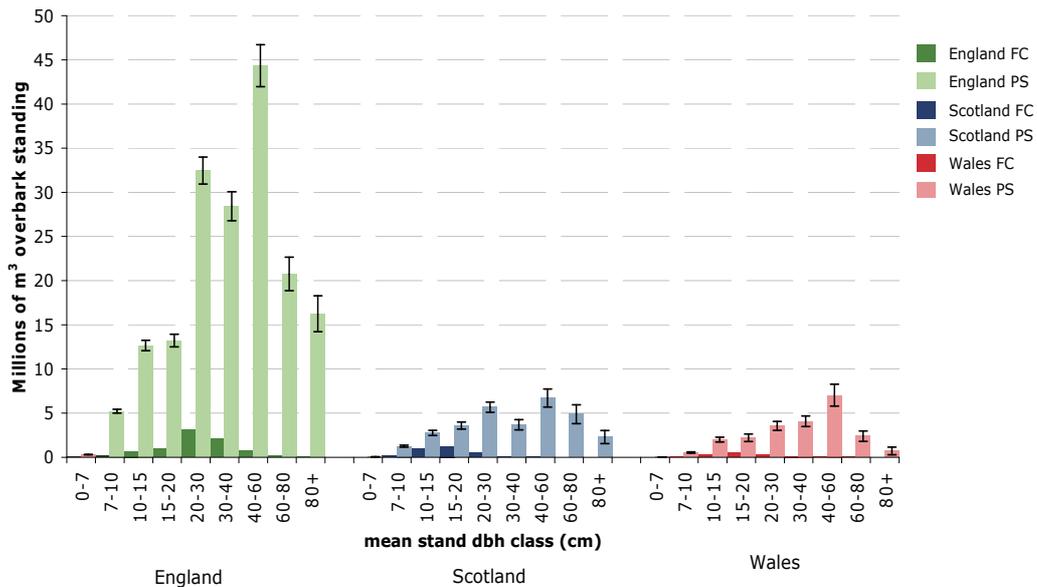


Figure 9b Standing volume by mean stand dbh class of all broadleaved species for countries



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Table 9 Standing volume by mean stand dbh class of all broadleaved species for GB and countries

Mean stand DBH (cm)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
England				
0-7	14	305	10	320
7-10	190	5,207	4	5,397
10-15	673	12,659	5	13,333
15-20	1,015	13,215	5	14,230
20-30	3,149	32,469	5	35,618
30-40	2,074	28,431	6	30,504
40-60	770	44,338	5	45,107
60-80	197	20,751	9	20,948
80+	66	16,244	13	16,310
Total	8,147	173,619	2	181,766
Scotland				
0-7	2	46	22	48
7-10	147	1,248	8	1,394
10-15	1,019	2,764	11	3,783
15-20	1,270	3,593	11	4,863
20-30	569	5,684	10	6,253
30-40	89	3,668	16	3,757
40-60	42	6,714	15	6,755
60-80	8	4,878	22	4,885
80+	5	2,302	32	2,307
Total	3,150	30,896	6	34,046
Wales				
0-7	3	13	27	15
7-10	55	536	13	592
10-15	301	2,002	13	2,303
15-20	498	2,209	19	2,707
20-30	330	3,563	14	3,893
30-40	117	4,086	15	4,203
40-60	80	7,030	18	7,110
60-80	20	2,390	25	2,409
80+	4	717	62	722
Total	1,408	22,545	7	23,953
Great Britain				
0-7	19	364	9	383
7-10	392	6,990	4	7,382
10-15	1,993	17,425	4	19,418
15-20	2,783	19,017	5	21,800
20-30	4,048	41,716	4	45,764
30-40	2,279	36,185	5	38,464
40-60	891	58,082	5	58,973
60-80	224	28,018	8	28,242
80+	76	19,263	11	19,339
Total	12,705	227,061	2	239,765

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Number of measurable trees as at 31 March 2011

Figure 10a Numbers of trees by principal broadleaved species for GB

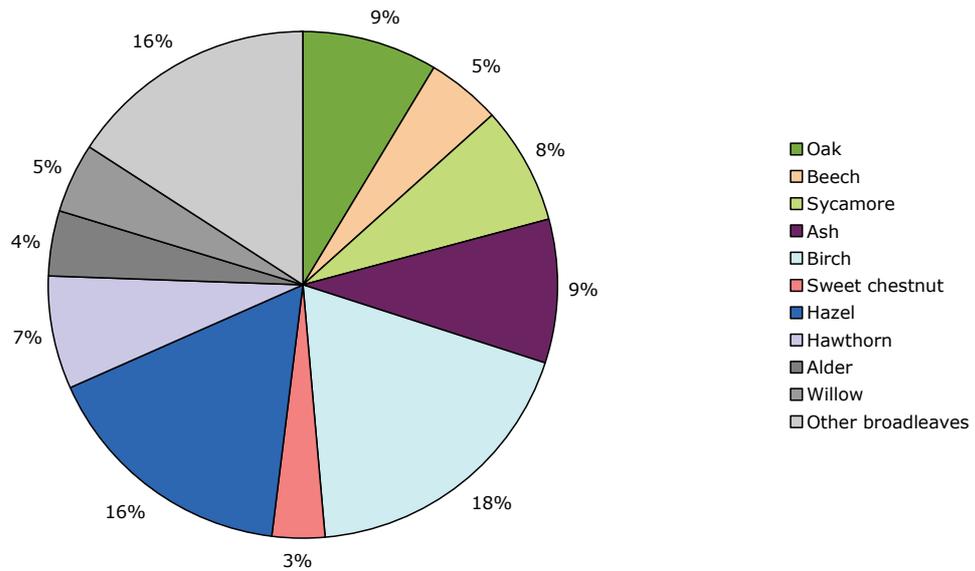
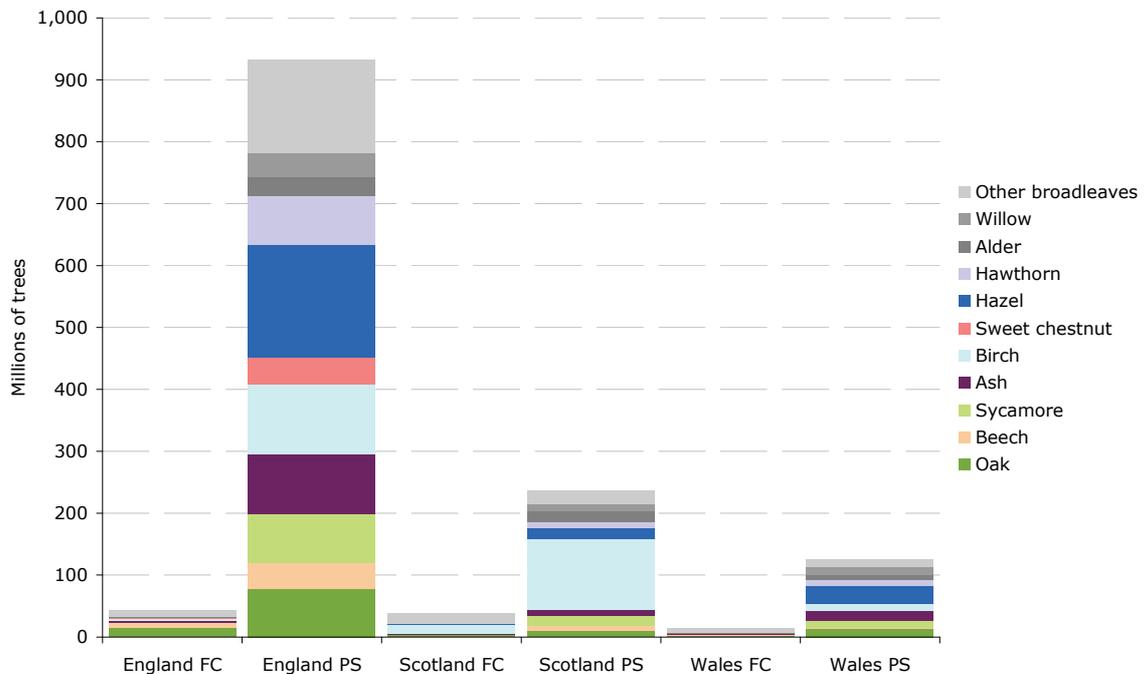


Figure 10b Numbers of trees by principal broadleaved species for countries



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Table 10 Numbers of trees by principal broadleaved species for GB and countries

Principal species	FC	Private sector		Total
	number of trees (millions)	number of trees (millions)	SE%	number of trees (millions)
England				
All broadleaves	43.2	933.9	2	977.1
Oak	15.2	77.3	4	92.4
Beech	7.5	41.8	6	49.3
Sycamore	0.6	79.5	6	80.1
Ash	2.2	96.5	5	98.7
Birch	4.7	113.3	5	118.0
Sweet chestnut	0.9	43.0	16	44.0
Hazel	0.5	181.5	5	182.0
Hawthorn	0.0	80.4	7	80.4
Alder	0.5	29.3	9	29.8
Willow	0.0	40.1	9	40.1
Other broadleave	11.1	150.5	4	161.6
Scotland				
All broadleaves	38.5	236.7	4	275.2
Oak	3.0	10.4	16	13.4
Beech	1.0	8.7	12	9.6
Sycamore	0.4	14.6	18	15.1
Ash	0.4	10.4	12	10.7
Birch	15.8	113.5	6	129.3
Sweet chestnut	0.0	0.0	-	0.0
Hazel	0.3	18.8	20	19.1
Hawthorn	0.0	10.3	18	10.3
Alder	1.0	16.9	18	17.8
Willow	0.0	10.5	14	10.5
Other broadleave	16.6	21.9	8	38.5
Wales				
All broadleaves	13.9	126.1	6	140.0
Oak	2.1	12.8	15	14.9
Beech	1.8	3.3	22	5.1
Sycamore	0.1	9.7	18	9.8
Ash	0.5	16.0	14	16.5
Birch	1.4	12.1	17	13.4
Sweet chestnut	0.1	0.2	58	0.2
Hazel	0.0	28.5	15	28.5
Hawthorn	0.0	9.4	20	9.4
Alder	0.2	8.5	19	8.7
Willow	0.0	13.0	20	13.0
Other broadleave	7.7	12.2	11	19.9
Great Britain				
All broadleaves	95.5	1,296.7	2	1,392.3
Oak	20.3	100.5	4	120.8
Beech	10.3	53.8	6	64.1
Sycamore	1.1	103.9	5	105.0
Ash	3.0	122.9	4	125.9
Birch	21.9	238.9	4	260.7
Sweet chestnut	1.0	43.2	15	44.2
Hazel	0.9	228.8	5	229.7
Hawthorn	0.0	100.1	6	100.1
Alder	1.7	54.6	8	56.3
Willow	0.0	63.6	8	63.6
Other broadleave	35.4	184.6	4	220.0

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Figure 11a Numbers of trees by age class of all broadleaved species for GB

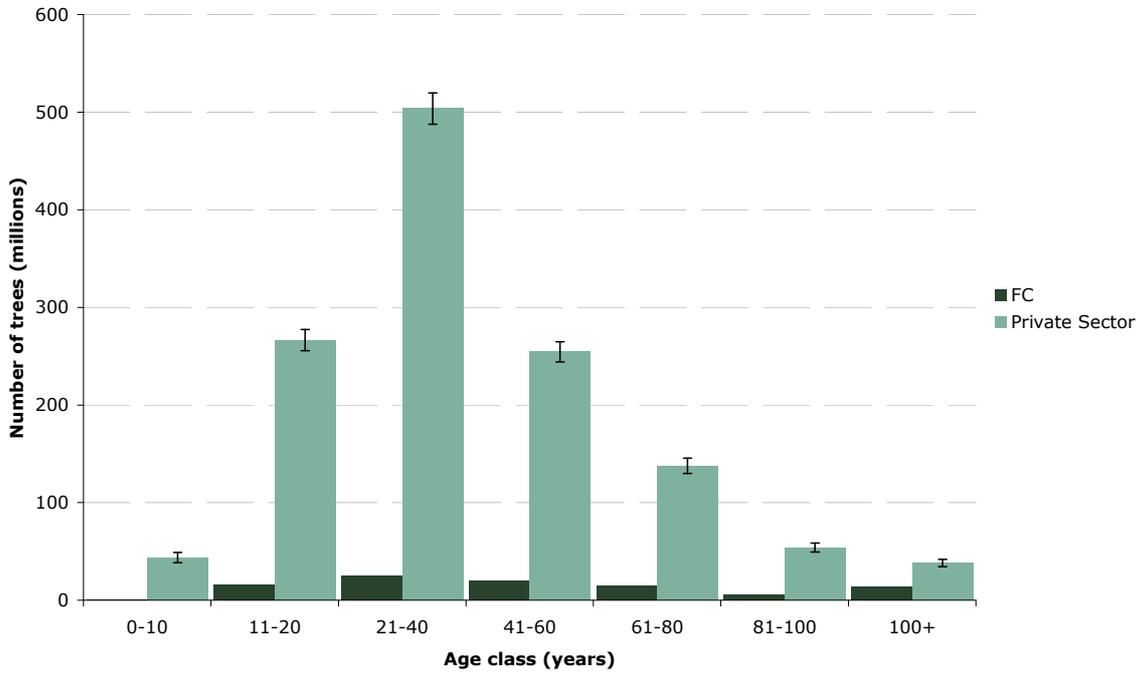
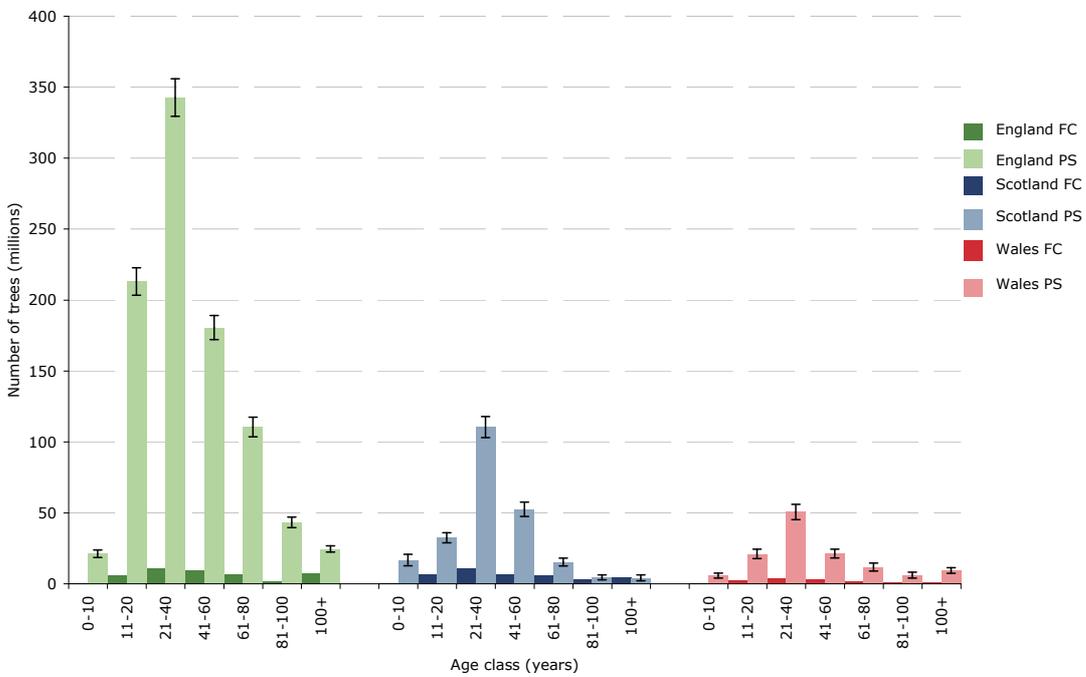


Figure 11b Numbers of trees by age class of all broadleaved species for countries



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Table 11 Numbers of trees by age class of all broadleaved species for GB and countries

Age class (years)	FC	Private sector		Total
	number of trees (millions)	number of trees (millions)	SE%	number of trees (millions)
England				
0-10	0.2	21.2	13	21.4
11-20	6.1	213.1	5	219.2
21-40	10.8	342.7	4	353.4
41-60	9.6	180.6	5	190.1
61-80	6.9	110.5	6	117.4
81-100	2.0	43.4	8	45.4
100+	7.7	24.6	9	32.2
Total	43.2	933.9	2	977.1
Scotland				
0-10	0.1	16.8	24	16.9
11-20	6.6	32.4	11	39.0
21-40	11.0	110.5	7	121.5
41-60	6.9	52.5	10	59.4
61-80	6.3	15.3	18	21.7
81-100	2.8	4.6	38	7.4
100+	4.8	4.2	50	9.0
Total	38.5	236.7	4	275.2
Wales				
0-10	0.2	5.8	30	5.9
11-20	2.7	21.1	16	23.8
21-40	3.8	50.7	11	54.4
41-60	3.3	21.4	14	24.7
61-80	1.9	11.8	24	13.7
81-100	0.8	6.1	34	6.9
100+	1.2	9.4	22	10.6
Total	13.9	126.1	6	140.0
Great Britain				
0-10	0.5	43.8	12	44.2
11-20	15.4	266.6	4	282.0
21-40	25.6	503.8	3	529.3
41-60	19.7	254.5	4	274.2
61-80	15.1	137.7	6	152.8
81-100	5.6	54.1	8	59.7
100+	13.7	38.2	10	51.9
Total	95.5	1,296.7	2	1,392.3

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Figure 12a Numbers of trees by mean stand dbh class of all broadleaved species for GB

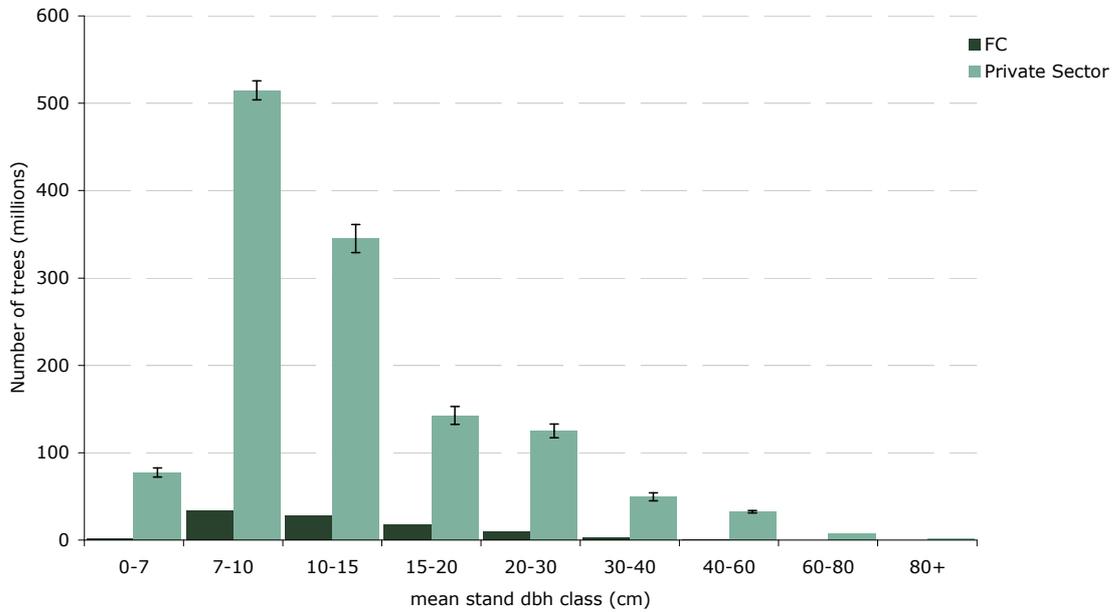
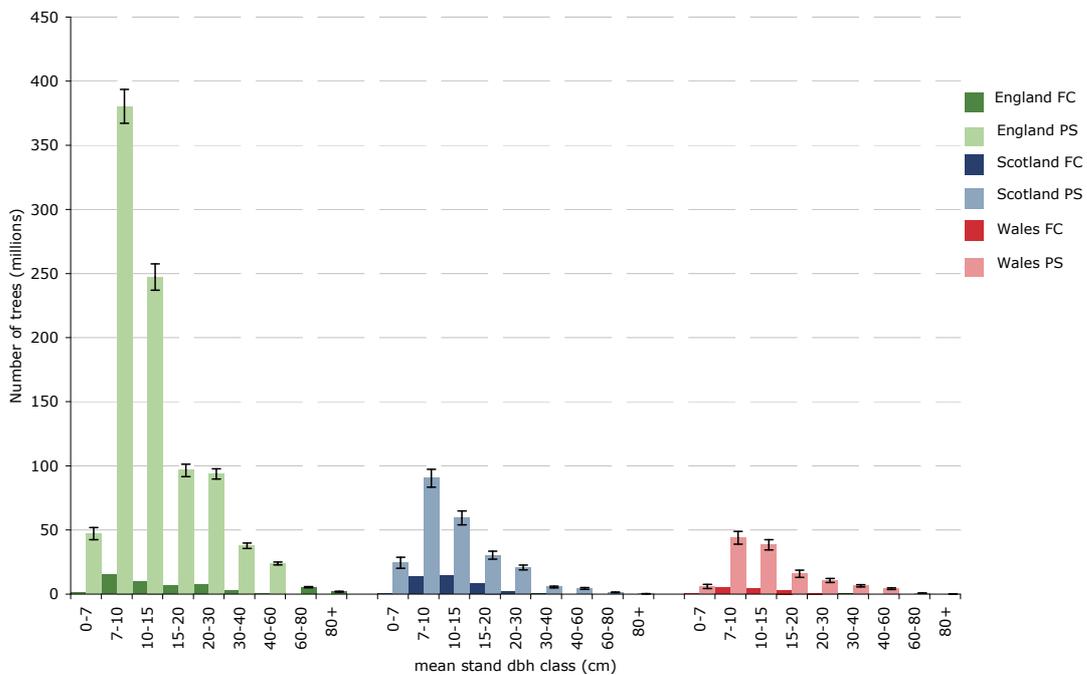


Figure 12b Numbers of trees by mean stand dbh class of all broadleaved species for countries



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Table 12 Numbers of trees by mean stand dbh class of all broadleaved species for GB and countries

Mean stand DBH (cm)	FC	Private sector		Total
	number of trees (millions)	number of trees (millions)	SE%	number of trees (millions)
England				
0-7	1.5	47.1	10	48.6
7-10	14.9	380.4	3	395.4
10-15	9.5	247.3	4	256.8
15-20	6.4	96.5	5	102.9
20-30	7.7	93.7	4	101.4
30-40	2.6	37.7	6	40.4
40-60	0.5	23.8	5	24.3
60-80	0.1	5.3	9	5.4
80+	0.0	1.9	12	1.9
Total	43.2	933.9	2	977.1
Scotland				
0-7	0.3	24.4	18	24.7
7-10	13.6	90.3	8	104.0
10-15	14.2	59.4	9	73.6
15-20	8.5	30.4	10	38.9
20-30	1.7	20.7	9	22.5
30-40	0.1	5.5	14	5.6
40-60	0.0	4.4	14	4.4
60-80	0.0	1.3	23	1.3
80+	0.0	0.3	32	0.3
Total	38.5	236.7	4	275.2
Wales				
0-7	0.4	5.9	27	6.3
7-10	5.0	44.0	11	49.0
10-15	4.3	38.4	10	42.7
15-20	3.2	15.8	17	19.0
20-30	0.9	10.6	14	11.5
30-40	0.1	6.4	15	6.5
40-60	0.0	4.2	16	4.2
60-80	0.0	0.7	25	0.7
80+	0.0	0.1	62	0.1
Total	13.9	126.1	6	140.0
Great Britain				
0-7	2.2	77.4	8	79.6
7-10	33.5	514.8	3	548.3
10-15	27.9	345.1	4	373.1
15-20	18.1	142.7	4	160.8
20-30	10.3	125.1	4	135.4
30-40	2.9	49.6	5	52.5
40-60	0.6	32.4	4	32.9
60-80	0.1	7.4	8	7.4
80+	0.0	2.2	11	2.3
Total	95.5	1,296.7	2	1,392.3

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Ash

Figure 13 Stocked area of ash as a proportion of woodland in NFI regions

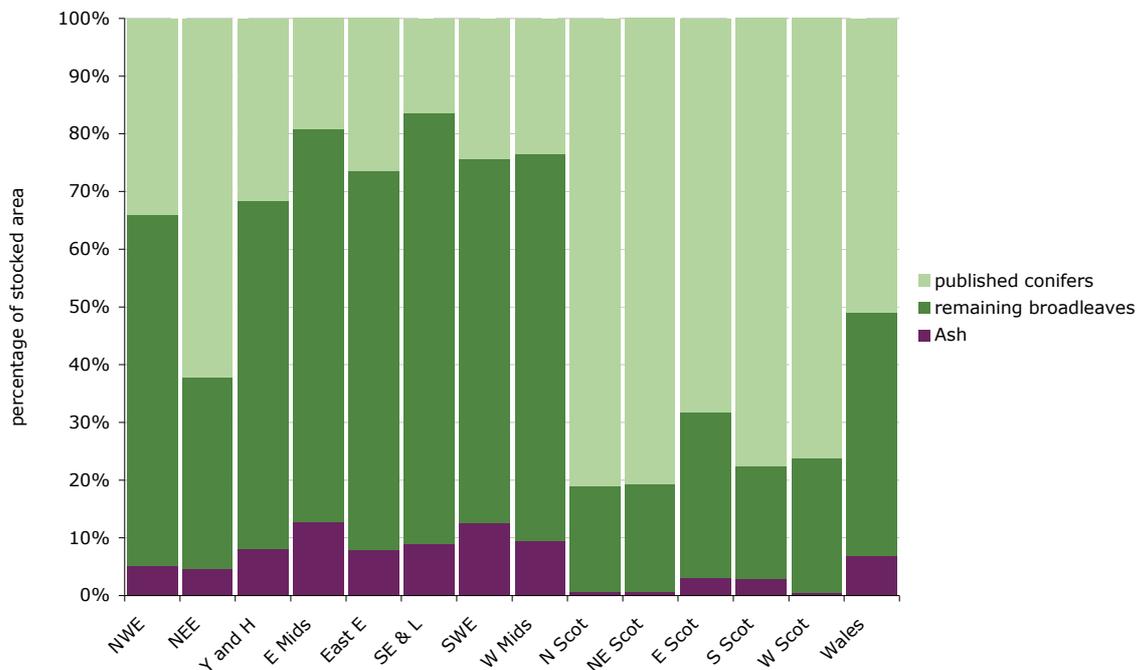


Table 13 Summary of stocked area of ash for GB, countries and NFI regions

Country/Region	Stocked area of ash				Stocked area of all broadleaves and all species			
	FC area (000 ha)	Private sector area (000 ha)		Total area (000 ha)	Total of all broadleaves area (000 ha)	Total of all species area (000 ha)	Percentage of ash in all broadleaves (percent)	Percentage of ash in all species (percent)
		SE%						
England	2.7	107.7	4	110.4	885.8	1,205.9	12	9
North West England	0.2	5.1	15	5.2	68.3	103.5	8	5
North East England	0.0	4.4	21	4.4	36.2	95.5	12	5
Yorkshire and Humber	0.2	8.6	10	8.8	74.1	108.4	12	8
East Midlands	0.9	11.0	12	12.0	75.8	93.9	16	13
East England	0.2	11.1	13	11.3	105.6	143.6	11	8
South East and London	0.4	27.3	7	27.7	258.3	309.1	11	9
South West England	0.6	30.0	7	30.5	183.3	242.1	17	13
West Midlands	0.2	10.3	14	10.5	84.1	109.8	12	10
Scotland	0.4	13.1	12	13.5	264.9	1,171.1	5	1
North Scotland	0.0	1.1	45	1.1	33.9	178.0	3	1
North East Scotland	0.0	0.2	42	0.3	41.8	216.6	1	0
East Scotland	0.1	1.7	25	1.8	38.1	119.7	5	1
South Scotland	0.1	9.0	15	9.1	81.4	363.5	11	2
West Scotland	0.2	1.1	43	1.3	69.8	293.3	2	0
Wales	0.4	17.2	11	17.6	126.2	257.4	14	7
Great Britain	3.5	138.1	3	141.6	1,276.9	2,634	11	5

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Figure 14 Standing volume of ash as a proportion of woodland in NFI regions

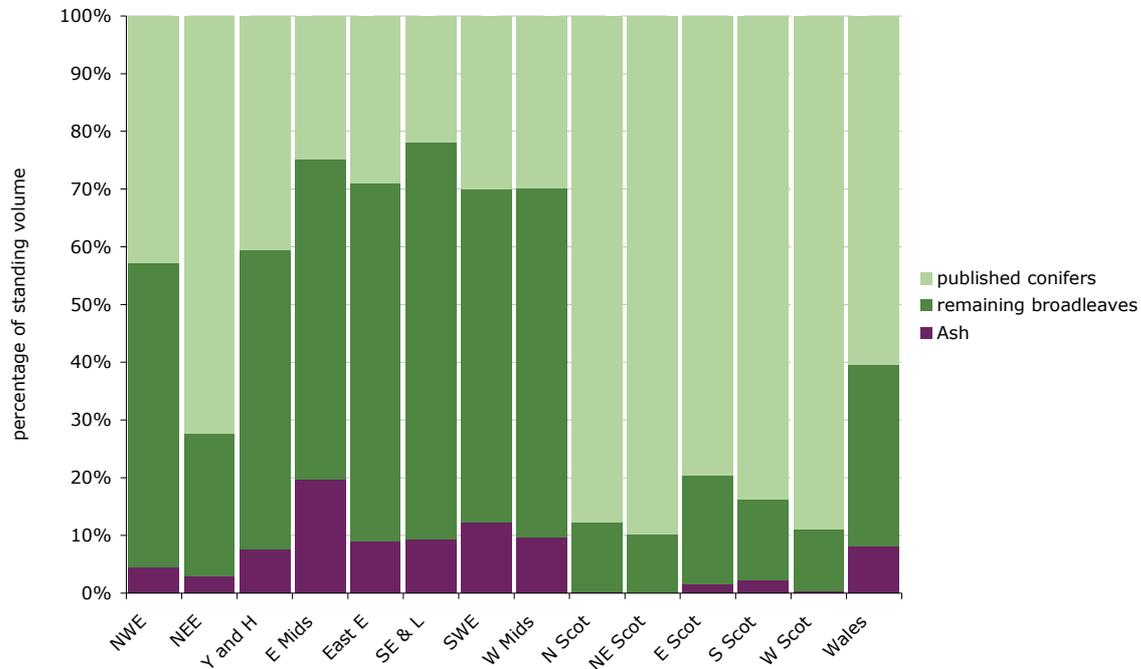


Table 14 Summary of standing volume of ash for GB, countries and NFI regions

Country/Region	Standing volume of ash				Standing volume of all broadleaves and all species			
	FC	Private sector		Total	Total of all broadleaves	Total of all species	Percentage of ash in all broadleaves	Percentage of ash in all species
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	volume (000 m ³ obs)	(percent)	(percent)
England	366	25,796	5	26,162	181,766	268,535	14	10
North West England	25	960	20	985	12,252	21,441	8	5
North East England	0	577	23	578	5,297	19,086	11	3
Yorkshire and Humber	25	1,597	13	1,622	12,557	21,141	13	8
East Midlands	131	3,380	21	3,510	13,429	17,844	26	20
East England	34	2,454	19	2,488	19,851	27,936	13	9
South East and London	56	6,362	9	6,418	53,445	68,338	12	9
South West England	76	7,332	8	7,408	42,278	60,444	18	12
West Midlands	20	3,133	22	3,154	22,658	32,306	14	10
Scotland	38	2,662	24	2,700	34,046	246,431	8	1
North Scotland	1	62	61	63	3,788	30,537	2	0
North East Scotland	2	10	90	12	4,152	40,739	0	0
East Scotland	2	392	46	394	5,460	26,718	7	1
South Scotland	7	1,954	31	1,961	13,348	82,418	15	2
West Scotland	26	244	48	271	7,298	66,019	4	0
Wales	61	4,906	17	4,967	23,953	60,541	21	8
Great Britain	466	33,364	5	33,829	239,765	575,507	14	6

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Figure 15 Number of ash trees as a proportion of woodland in NFI regions

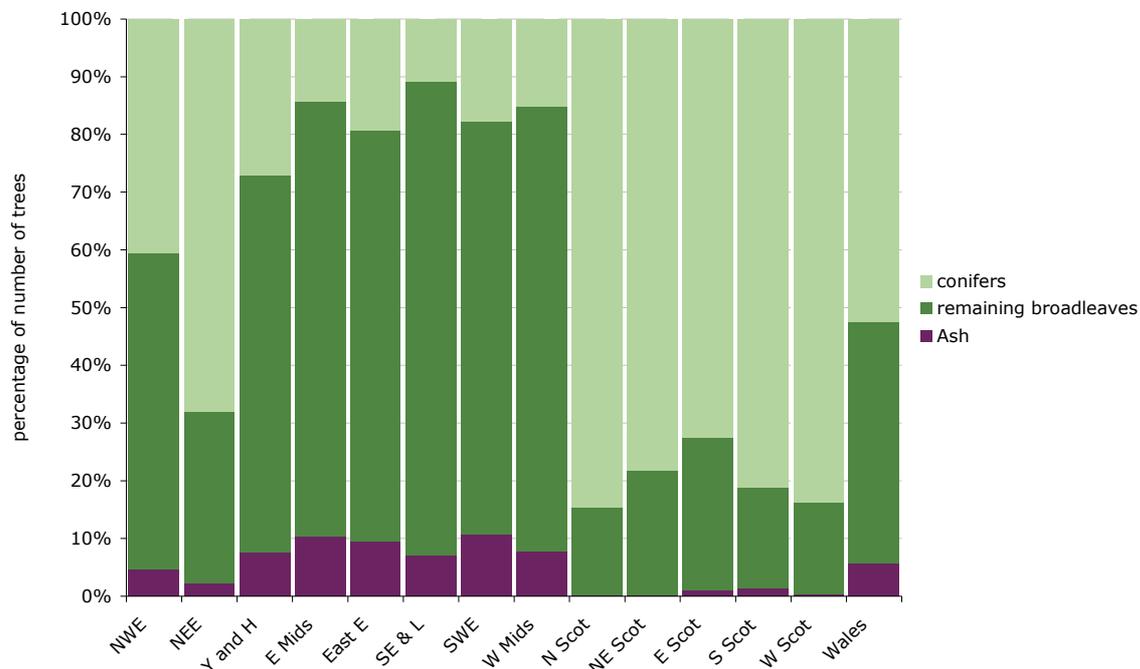


Table 15 Summary of numbers of trees of ash for GB, countries and NFI regions

Country/Region	Numbers of trees of ash				Number of trees of all broadleaves and all species			
	FC number of trees (millions)	Private sector		Total number of trees (millions)	Total of all broadleaves number of trees (millions)	Total of all species number of trees (millions)	Percentage of ash in all broadleaves (percent)	Percentage of ash in all species (percent)
		number of trees (millions)	SE%					
England	2.2	96.5	5	98.7	977.1	1,265.4	10	8
North West England	0.3	4.6	20	4.9	60.5	101.9	8	5
North East England	0.0	2.6	21	2.6	36.5	114.4	7	2
Yorkshire and Humber	0.1	8.5	12	8.6	83.4	114.1	10	8
East Midlands	0.7	7.8	14	8.6	70.4	82.2	12	10
East England	0.2	12.0	19	12.2	103.8	128.7	12	9
South East and London	0.4	23.9	11	24.3	306.8	343.9	8	7
South West England	0.4	29.1	8	29.5	227.2	276.0	13	11
West Midlands	0.1	7.9	16	8.1	88.4	104.3	9	8
Scotland	0.4	10.4	12	10.7	275.2	1,479.6	4	1
North Scotland	0.0	0.6	47	0.6	39.1	252.5	2	0
North East Scotland	0.0	0.2	42	0.2	39.2	179.0	1	0
East Scotland	0.0	1.3	26	1.3	33.8	123.3	4	1
South Scotland	0.1	7.0	15	7.1	92.0	485.9	8	1
West Scotland	0.2	1.3	42	1.5	71.2	438.8	2	0
Wales	0.5	16.0	14	16.5	140.0	294.3	12	6
Great Britain	3.0	122.9	4	125.9	1,392.3	3,039.3	9	4

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Stocked area as at 31 March 2011

Figure 16a Stocked area by age class of ash for GB

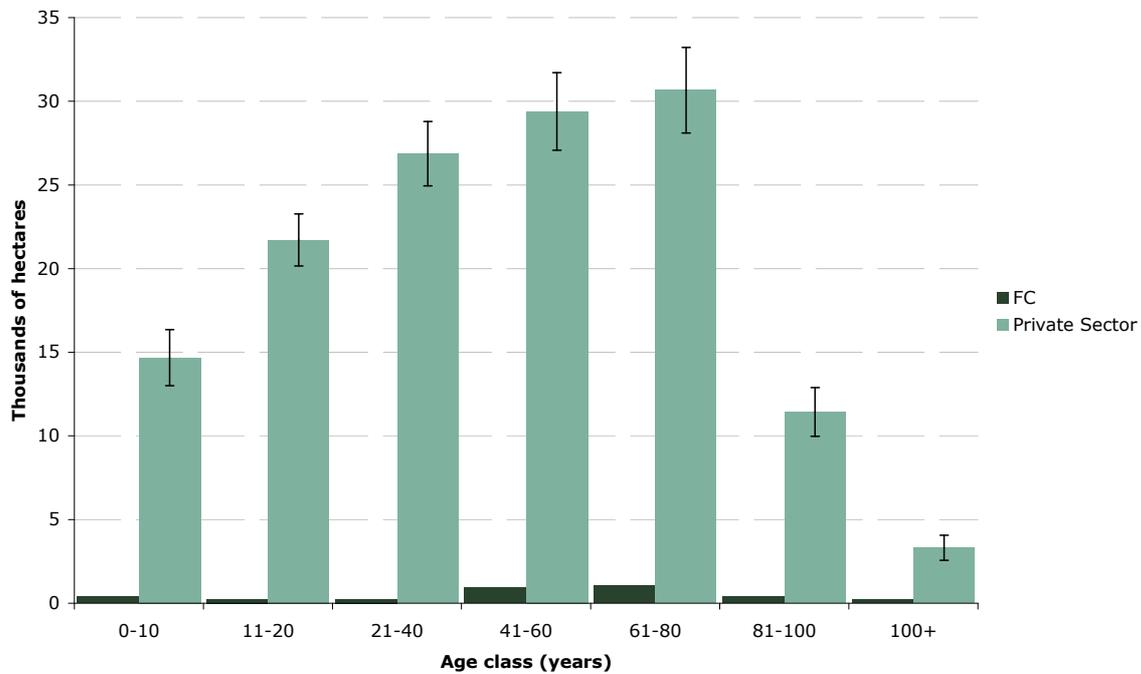
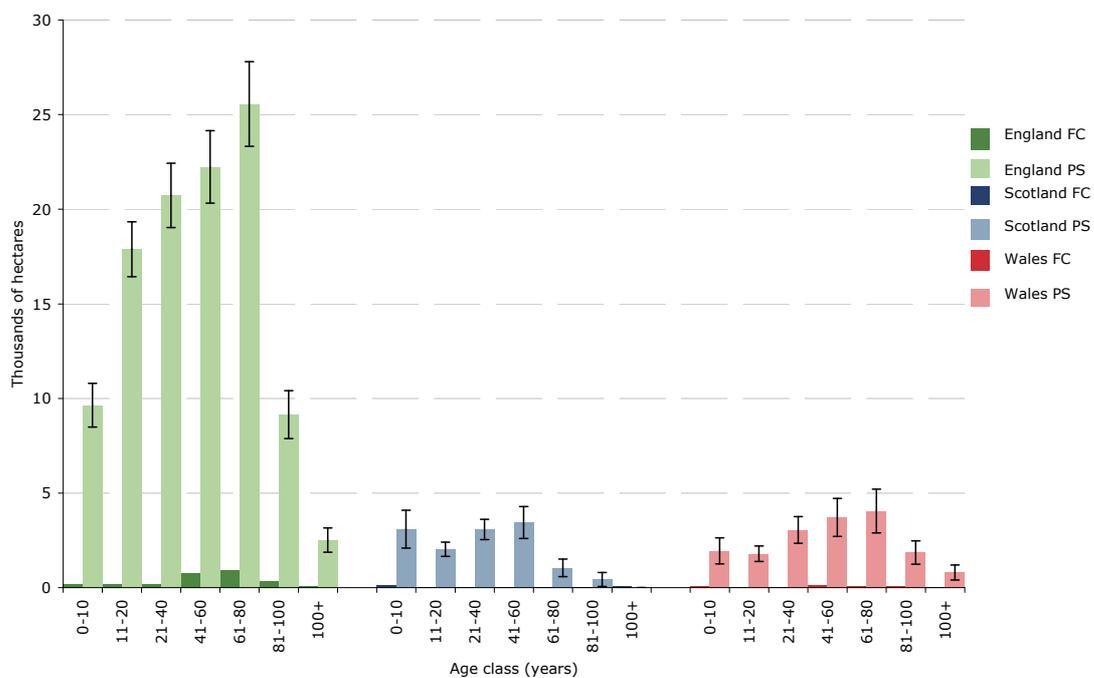


Figure 16b Stocked area by age class of ash for countries



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Table 16 Stocked area by age class of ash for GB and countries

Age class (years)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
England				
0-10	0.2	9.6	12	9.8
11-20	0.2	17.9	8	18.1
21-40	0.2	20.7	8	20.9
41-60	0.8	22.2	9	23.0
61-80	0.9	25.6	9	26.5
81-100	0.3	9.1	14	9.5
100+	0.1	2.5	25	2.6
Total	2.7	107.7	4	110.4
Scotland				
0-10	0.1	3.1	32	3.2
11-20	0.0	2.0	19	2.1
21-40	0.0	3.1	17	3.1
41-60	0.0	3.4	25	3.5
61-80	0.0	1.1	44	1.1
81-100	0.0	0.4	85	0.5
100+	0.1	0.0	-	0.1
Total	0.4	13.1	12	13.5
Wales				
0-10	0.1	1.9	35	2.0
11-20	0.0	1.8	23	1.8
21-40	0.0	3.1	23	3.1
41-60	0.1	3.7	27	3.8
61-80	0.1	4.1	29	4.1
81-100	0.1	1.9	33	1.9
100+	0.0	0.8	50	0.8
Total	0.4	17.2	11	17.6
Great Britain				
0-10	0.4	14.7	11	15.1
11-20	0.3	21.7	7	22.0
21-40	0.2	26.9	7	27.1
41-60	0.9	29.4	8	30.3
61-80	1.1	30.7	8	31.7
81-100	0.4	11.4	13	11.8
100+	0.2	3.3	23	3.5
Total	3.5	138.1	3	141.6

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Figure 17a Stocked area by mean stand dbh class of ash for GB

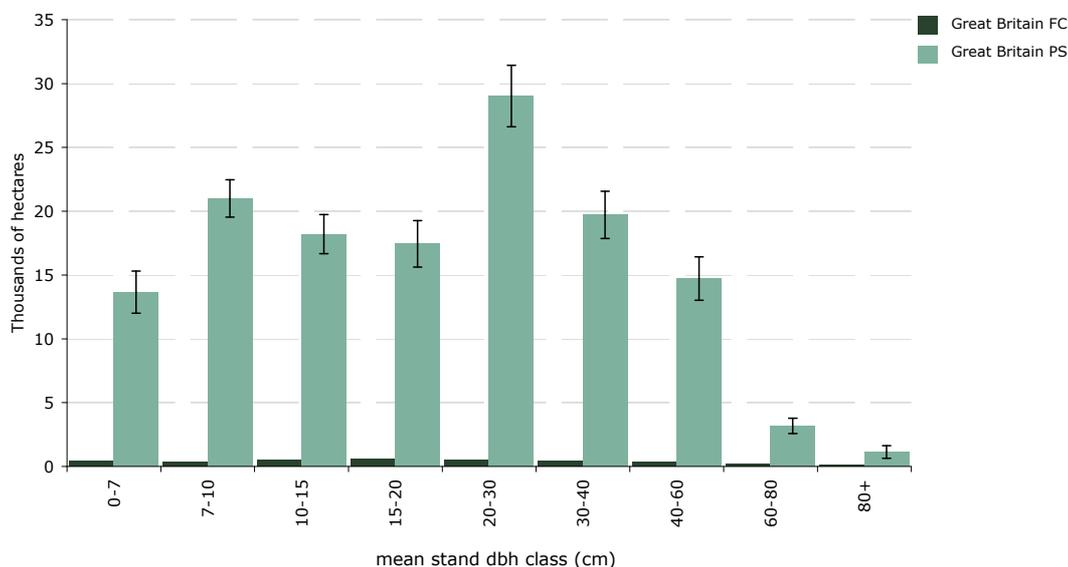
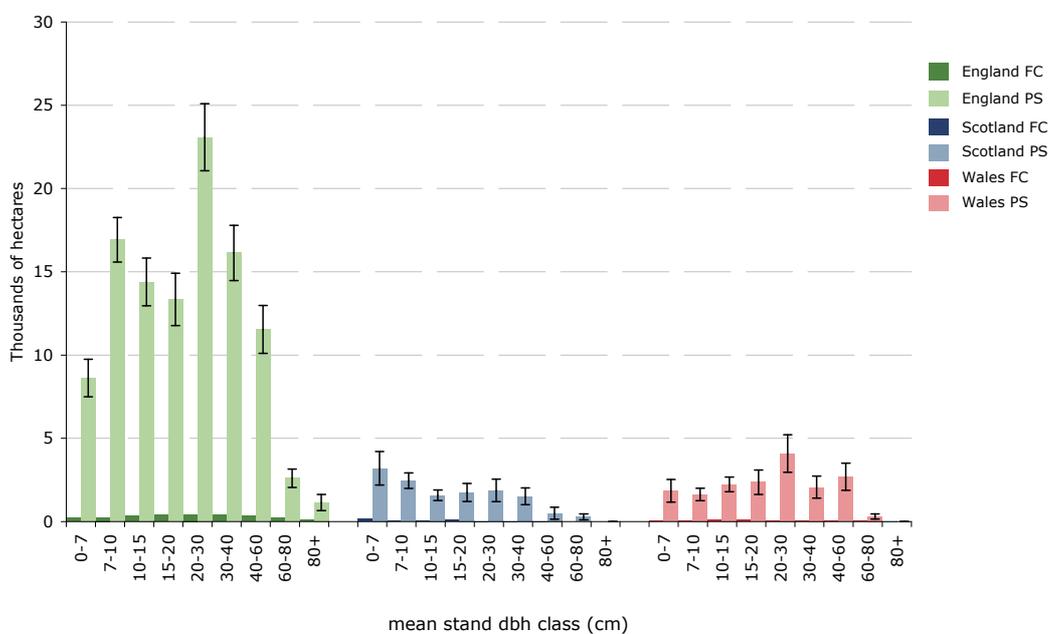


Figure 17b Stocked area by mean stand dbh class of ash for countries



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Table 17 Stocked area by mean stand dbh class of ash for GB and countries

Mean stand DBH (cm)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
England				
0-7	0.2	8.6	13	8.8
7-10	0.2	16.9	8	17.2
10-15	0.4	14.4	10	14.7
15-20	0.4	13.3	12	13.7
20-30	0.4	23.1	9	23.5
30-40	0.4	16.1	10	16.5
40-60	0.3	11.5	12	11.9
60-80	0.2	2.6	21	2.8
80+	0.1	1.1	43	1.2
Total	2.7	107.7	4	110.4
Scotland				
0-7	0.1	3.2	31	3.3
7-10	0.1	2.5	19	2.5
10-15	0.0	1.6	20	1.6
15-20	0.1	1.7	31	1.9
20-30	0.0	1.9	36	1.9
30-40	0.0	1.5	33	1.5
40-60	0.0	0.5	72	0.5
60-80	0.0	0.3	63	0.3
80+	0.0	0.0	-	0.0
Total	0.4	13.1	12	13.5
Wales				
0-7	0.1	1.8	37	1.9
7-10	0.0	1.6	23	1.7
10-15	0.1	2.2	20	2.3
15-20	0.1	2.4	31	2.4
20-30	0.1	4.1	28	4.1
30-40	0.0	2.1	32	2.1
40-60	0.0	2.7	30	2.7
60-80	0.0	0.3	50	0.3
80+	0.0	0.0	-	0.0
Total	0.4	17.2	11	17.6
Great Britain				
0-7	0.4	13.7	12	14.1
7-10	0.3	21.0	7	21.3
10-15	0.5	18.2	8	18.7
15-20	0.6	17.4	10	18.1
20-30	0.5	29.0	8	29.5
30-40	0.4	19.7	9	20.1
40-60	0.4	14.7	11	15.1
60-80	0.2	3.2	19	3.4
80+	0.1	1.1	43	1.2
Total	3.5	138.1	3	141.6

Standing volume as at 31 March 2011

Figure 18a Standing volume by age class of ash for GB

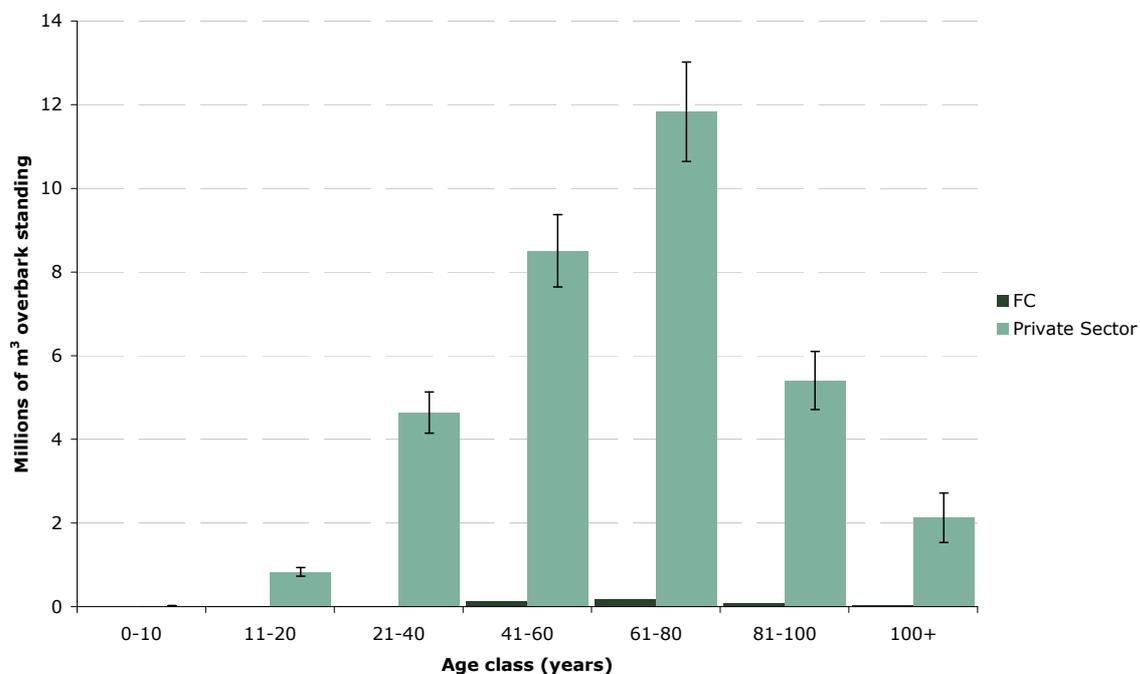
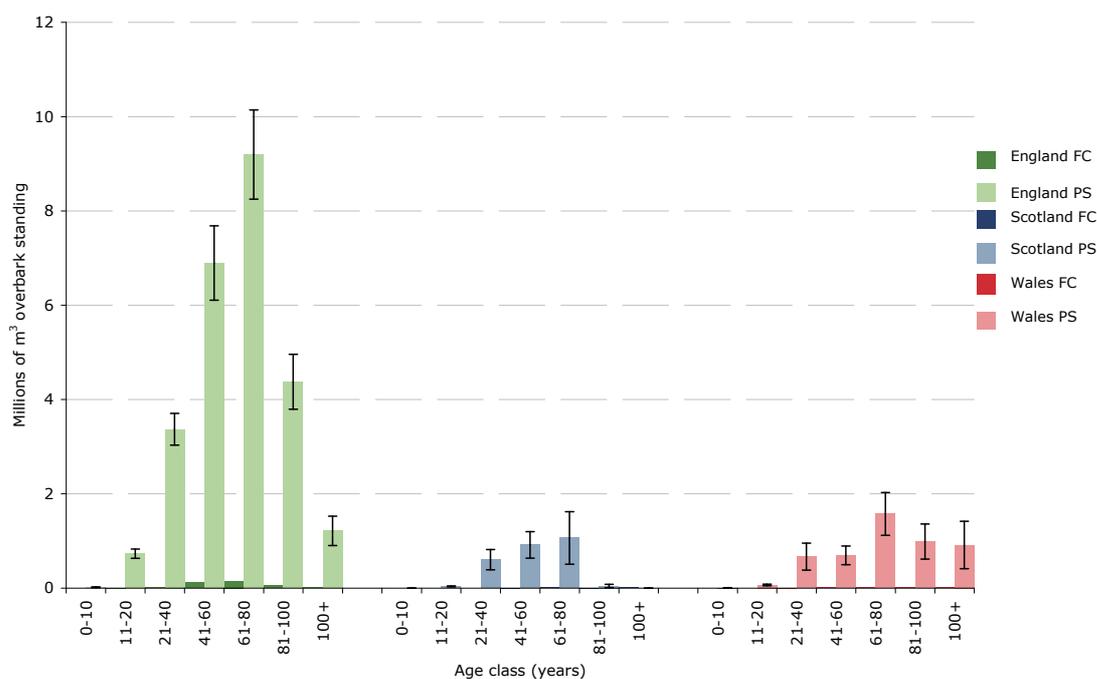


Figure 18b Standing volume by age class of ash for countries



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Table 18 Standing volume by age class of ash for GB and countries

Age class (years)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
England				
0-10	0	17	41	17
11-20	2	731	14	733
21-40	18	3,369	10	3,387
41-60	113	6,895	11	7,008
61-80	155	9,196	10	9,350
81-100	61	4,375	13	4,436
100+	17	1,213	26	1,230
Total	366	25,796	5	26,162
Scotland				
0-10	0	1	77	1
11-20	0	34	32	34
21-40	2	603	36	604
41-60	6	917	31	922
61-80	7	1,062	53	1,069
81-100	3	45	80	48
100+	21	0	-	21
Total	38	2,662	24	2,700
Wales				
0-10	0	4	59	4
11-20	0	66	27	67
21-40	2	667	43	669
41-60	22	696	29	718
61-80	16	1,572	29	1,588
81-100	13	987	38	999
100+	8	914	55	922
Total	61	4,906	17	4,967
Great Britain				
0-10	0	22	34	22
11-20	3	832	12	834
21-40	22	4,639	11	4,661
41-60	141	8,508	10	8,649
61-80	177	11,830	10	12,008
81-100	77	5,407	13	5,483
100+	46	2,127	28	2,173
Total	466	33,364	5	33,829

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Figure 19a Standing volume by stand mean dbh class of ash for GB

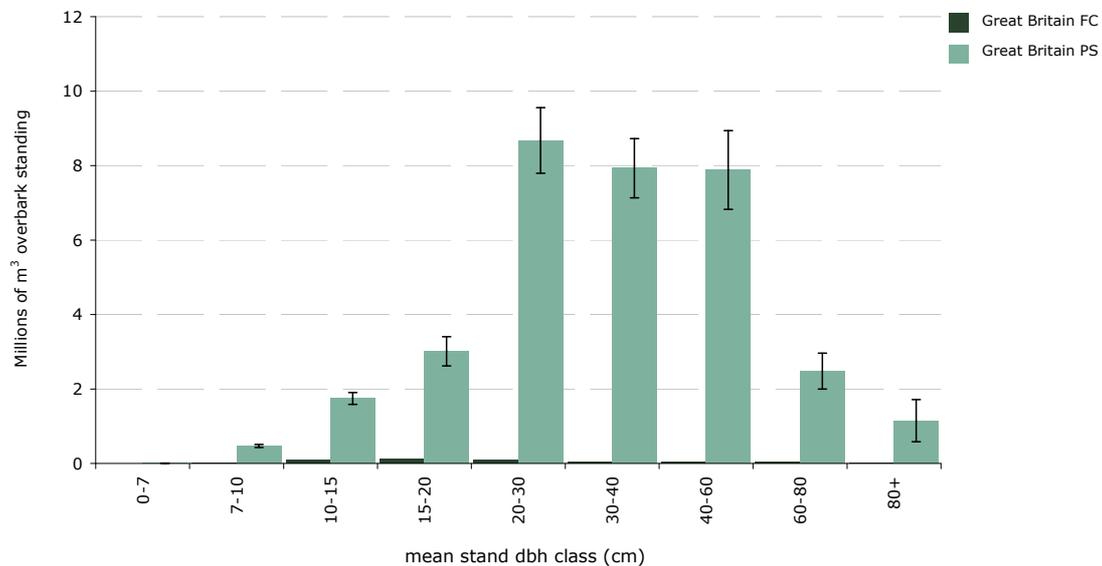
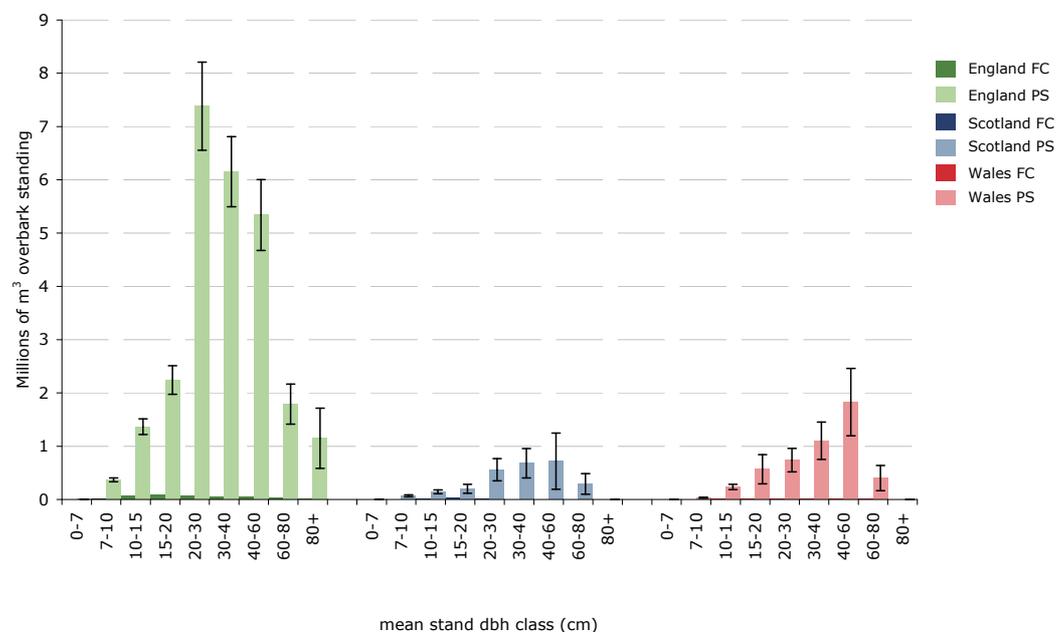


Figure 19b Standing volume by stand mean dbh class of ash for countries



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Table 19 Standing volume by mean stand dbh class of ash for GB and countries

Mean stand DBH (cm)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
England				
0-7	0	4	59	4
7-10	6	370	10	376
10-15	60	1,368	11	1,428
15-20	83	2,245	12	2,327
20-30	72	7,382	11	7,454
30-40	46	6,151	11	6,197
40-60	47	5,339	12	5,386
60-80	36	1,789	21	1,825
80+	16	1,148	49	1,165
Total	366	25,796	5	26,162
Scotland				
0-7	0	2	88	2
7-10	1	67	27	68
10-15	5	143	25	148
15-20	28	203	41	230
20-30	2	558	37	560
30-40	1	679	41	680
40-60	1	719	73	720
60-80	0	292	66	292
80+	0	0	-	0
Total	38	2,662	24	2,700
Wales				
0-7	0	0	59	0
7-10	1	33	24	34
10-15	16	236	21	252
15-20	19	568	48	586
20-30	13	738	30	751
30-40	5	1,102	32	1,106
40-60	4	1,827	35	1,831
60-80	3	402	59	405
80+	1	0	-	1
Total	61	4,906	17	4,967
Great Britain				
0-7	0	6	45	6
7-10	8	470	9	478
10-15	81	1,747	9	1,828
15-20	129	3,015	13	3,144
20-30	88	8,677	10	8,765
30-40	52	7,932	10	7,984
40-60	52	7,886	13	7,938
60-80	39	2,483	20	2,522
80+	17	1,148	49	1,166
Total	466	33,364	5	33,829

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Number of measurable trees as at 31 March 2011

Figure 20a Numbers of trees by age class of ash for GB

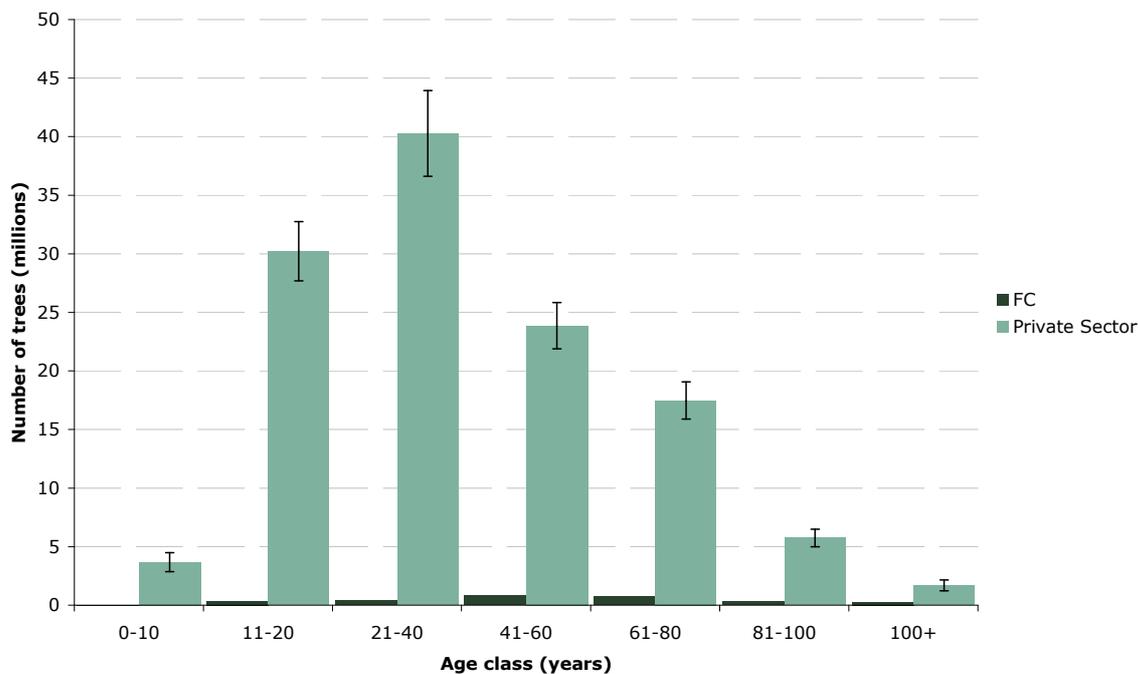
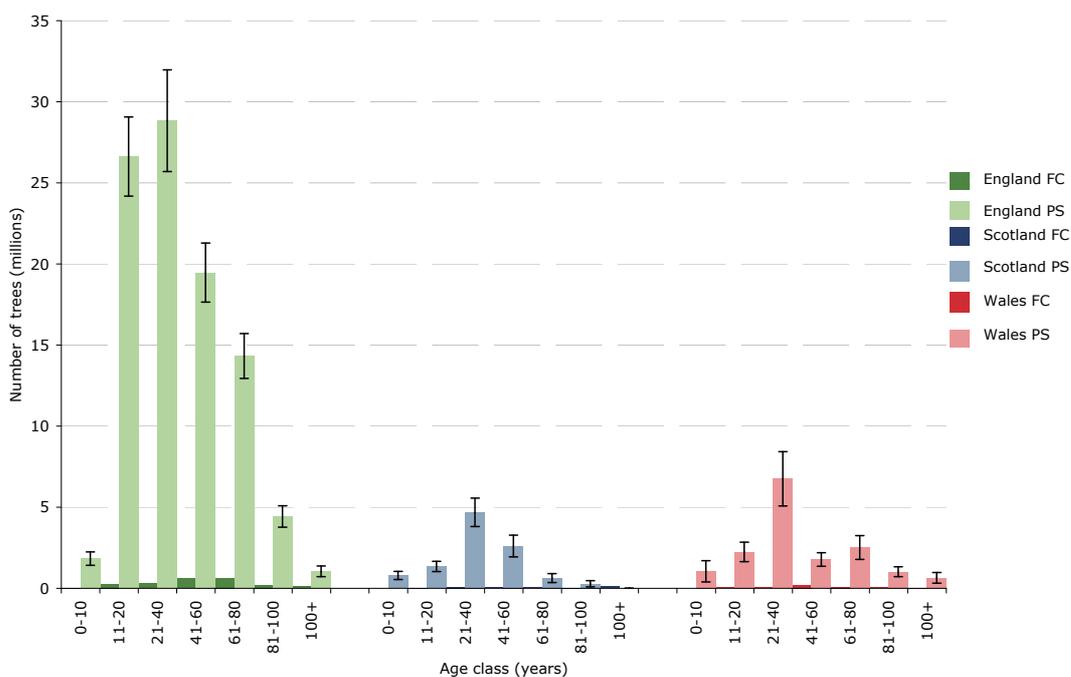


Figure 20b Numbers of trees by age class of ash for countries



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Table 20 Numbers of trees by age class of ash for GB and countries

Age class (years)	FC	Private sector		Total
	number of trees (millions)	number of trees (millions)	SE%	number of trees (millions)
England				
0-10	0.0	1.8	23	1.9
11-20	0.3	26.6	9	26.9
21-40	0.3	28.8	11	29.1
41-60	0.6	19.5	9	20.1
61-80	0.6	14.3	10	14.9
81-100	0.2	4.4	15	4.7
100+	0.1	1.0	31	1.2
Total	2.2	96.5	5	98.7
Scotland				
0-10	0.0	0.8	31	0.8
11-20	0.0	1.4	23	1.4
21-40	0.1	4.7	19	4.8
41-60	0.1	2.6	26	2.7
61-80	0.0	0.6	43	0.7
81-100	0.0	0.3	65	0.3
100+	0.1	0.0	-	0.1
Total	0.4	10.4	12	10.7
Wales				
0-10	0.0	1.1	62	1.1
11-20	0.0	2.2	27	2.3
21-40	0.1	6.8	25	6.8
41-60	0.2	1.8	23	2.0
61-80	0.1	2.5	29	2.6
81-100	0.1	1.0	30	1.1
100+	0.0	0.6	51	0.7
Total	0.5	16.0	14	16.5
Great Britain				
0-10	0.0	3.7	22	3.7
11-20	0.4	30.2	8	30.6
21-40	0.4	40.3	9	40.7
41-60	0.8	23.9	8	24.7
61-80	0.7	17.5	9	18.2
81-100	0.3	5.7	13	6.0
100+	0.3	1.7	27	2.0
Total	3.0	122.9	4	125.9

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Figure 21a Numbers of trees by mean stand dbh class of ash for GB

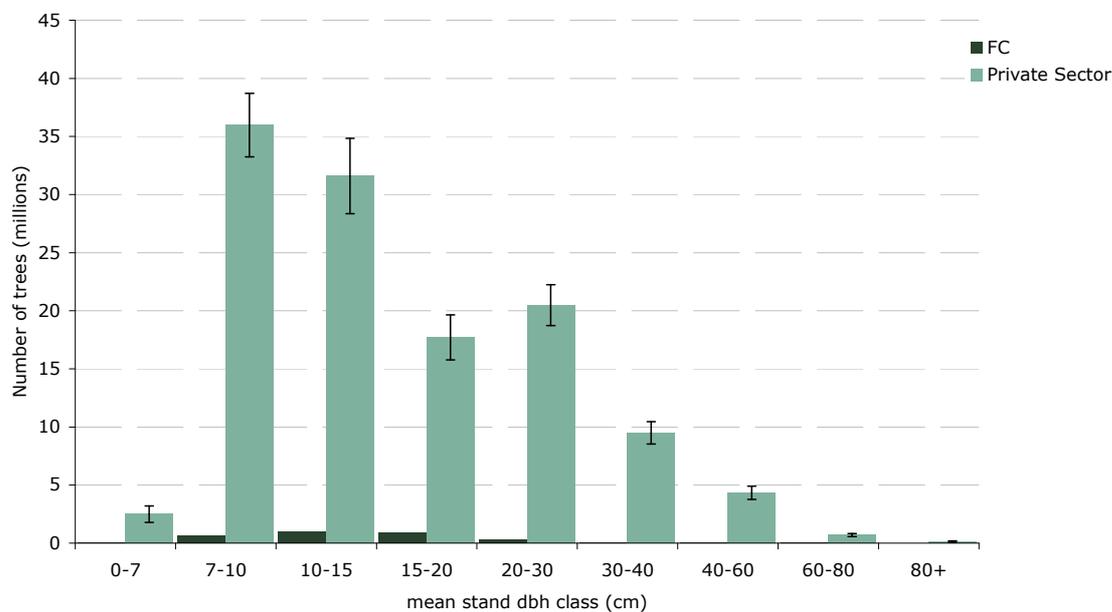
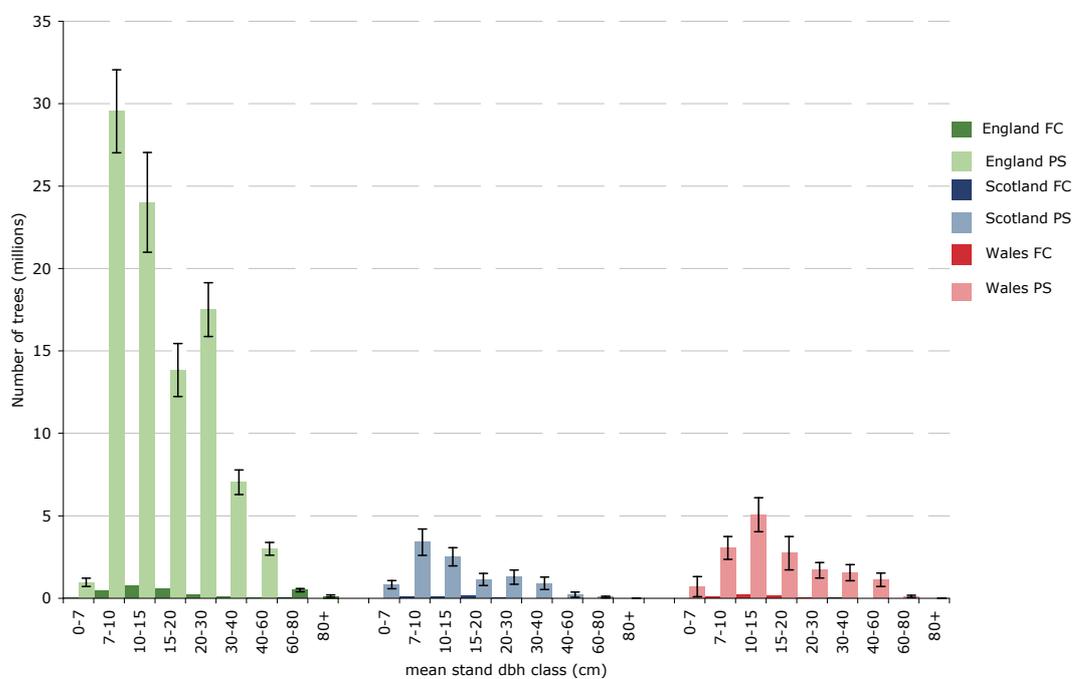


Figure 21b Numbers of trees by mean stand dbh class of ash for countries



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Table 21 Numbers of trees by mean stand dbh class of ash for GB and countries

Mean stand DBH (cm)	FC	Private sector		Total
	number of trees (millions)	number of trees (millions)	SE%	number of trees (millions)
England				
0-7	0.0	1.0	26	1.0
7-10	0.5	29.5	9	30.0
10-15	0.7	24.0	13	24.7
15-20	0.6	13.8	12	14.5
20-30	0.2	17.5	9	17.7
30-40	0.1	7.0	11	7.1
40-60	0.0	3.0	13	3.0
60-80	0.0	0.5	21	0.5
80+	0.0	0.1	49	0.1
Total	2.2	96.5	5	98.7
Scotland				
0-7	0.0	0.8	31	0.8
7-10	0.1	3.4	23	3.5
10-15	0.1	2.5	22	2.6
15-20	0.2	1.1	32	1.3
20-30	0.0	1.3	34	1.3
30-40	0.0	0.9	41	0.9
40-60	0.0	0.2	71	0.2
60-80	0.0	0.1	65	0.1
80+	0.0	0.0	-	0.0
Total	0.4	10.4	12	10.7
Wales				
0-7	0.0	0.7	86	0.7
7-10	0.1	3.1	23	3.1
10-15	0.2	5.1	20	5.3
15-20	0.1	2.7	37	2.9
20-30	0.0	1.7	28	1.7
30-40	0.0	1.5	31	1.6
40-60	0.0	1.1	36	1.1
60-80	0.0	0.1	61	0.1
80+	0.0	0.0	-	0.0
Total	0.5	16.0	14	16.5
Great Britain				
0-7	0.0	2.5	28	2.5
7-10	0.6	36.0	8	36.6
10-15	1.0	31.6	10	32.6
15-20	0.9	17.7	11	18.6
20-30	0.3	20.5	9	20.7
30-40	0.1	9.5	10	9.6
40-60	0.0	4.3	13	4.4
60-80	0.0	0.7	20	0.7
80+	0.0	0.1	49	0.1
Total	3.0	122.9	4	125.9

Seedlings and saplings

Table 22 Number of seedlings and saplings in Private Sector NFI mapped woodland for GB and countries

		Seedlings		Saplings		Total seedlings and saplings	
		Estimate (millions)	SE%	Estimate (millions)	SE%	Estimate (millions)	SE%
England	All broadleaves	2,501	6	858	5	3,359	5
	Ash	1,285	8	161	15	1,446	8
	Percentage ash	51		19		43	
Scotland	All broadleaves	291	11	241	14	532	10
	Ash	53	27	11	23	64	25
	Percentage ash	18		5		12	
Wales	All broadleaves	199	17	122	12	322	13
	Ash	101	24	26	25	128	23
	Percentage ash	51		21		40	
Great Britain	All broadleaves	2,992	5	1,221	5	4,213	4
	Ash	1,439	8	199	13	1,638	7
	Percentage ash	48		16		39	

Discussion

The estimates show that ash is a significant tree species within British woodlands and forests. At 11% of broadleaved stocked area (Table 13) it is the third most prevalent broadleaved species and at 5% of all species it is the fifth most prevalent of all conifer* and broadleaf species combined within Great Britain.

Distribution varies significantly across Great Britain, with ash being especially prevalent in England and Wales. It is estimated to be 12% of broadleaved stocked area in England and 14% in Wales (Table 13). Within England the distribution of ash varies between and within NFI regions and the results show that ash is most prevalent in the south west, south and midlands, which is evident in Maps 1, 2 and 3. In Wales, the mapping of NFI sample sites in Map 3 indicates that ash is more prevalent in the south than the north of Wales. Similar differences in distribution within regions are evident in many areas. Scotland has a comparatively low cover of ash at 5% of the country's broadleaved woodland, but again distribution varies between regions and whilst there are relatively low levels of ash north of the Forth and Clyde rivers, ash is more prevalent in the Scottish Borders to the south of the country. These distributions largely reflect the natural range of ash, which varies according to each area's environmental suitability for the species and also to historical differences in land use management within the different areas of Great Britain.

The stocked areas of the 10 principal species (Table 4) illustrate how relatively few species account for most of the broadleaved stocked areas at the GB level. As a consequence, these few species (10 out of the 81 recorded) also contribute most to standing volume and tree numbers. Ash is one such species and currently plays a significant role in the GB forest resource, accounting for around 14% of total standing broadleaved timber volume and 9% of trees (Tables 14 and 15). The majority of these are to be found within the private sector.

The results show that there is more standing broadleaved volume in forests and woodlands in Great Britain than could have been inferred from previous evaluations of the broadleaved timber resource (for example, the Census of Woodlands and Trees 1979-82). Estimates of standing volume on the Forestry Commission estate are consistent with previously reported areas and age classes. The increase in total standing volume therefore relates to estimates for the private sector estate, and this is believed to be largely due to increases in the estimates of woodland area, stocked area and number of trees per hectare for this sector.

* For conifer estimates see NFI Report 'Standing timber volume for coniferous trees in Britain'

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The revised estimates of woodland area, stocked area and number of trees per hectare mainly result from more accurate information arising from the improved methodology used in the current National Forest Inventory. It may also be in part due to actual change in woodlands since earlier evaluations. For example, increases in standing volume may be due to the size of trees increasing as they have grown and matured since the last assessment. However, that factor needs to be set against any felling activity in the intervening period. New planting and replanting since the 1979-82 census will also have had an impact on changes in stocked areas, tree numbers and standing volumes over time.

There are an estimated 1.4 billion broadleaved trees over the size of 4cm dbh within British woods, of which 126 million are ash trees (Table 10). This estimate excludes seedlings and saplings of ash, of which there are estimated to be around 1.6 billion in private sector woodland (Table 22). Ash forms a significant component (39%) of the estimated 4.2 billion broadleaved saplings and seedlings in British private sector woodland and this suggests that ash plays a significant role in the current and recent reproductive processes of British woodlands.

The estimates presented within this report cover woodlands over 0.5 hectares in size and greater than 20 metres in width. Ash is also present in lower numbers in smaller woods, hedgerows and lone trees, which are not covered by this report. Information and estimates on these are available from the Countryside Survey.

The relative standing volumes and tree numbers of the principal broadleaved species (Tables 7 and 10) are largely associated with the proportion of total stocked area occupied by each species. Oak, beech, sycamore and ash contribute the most to the broadleaved standing volume at the GB level and also occupy large portions of the stocked area of broadleaves in Great Britain. However, other factors, including the morphology of the individual tree species (affecting how large a tree may grow to), age distribution, past thinning practice (a factor which affects the number of live stems remaining in a stand) and growth rates (which determine average tree sizes of a given age) will also influence the total standing volume of a given species. For example, such factors account for birch, a relatively small tree when mature, representing the largest number of broadleaved trees for a single species and the second highest for stocked area, yet it only accounts for the fifth largest amount of standing volume.

The relative dominance of broadleaved species in British woodlands is generally determined by species suitability to the specific environmental influences (such as climate and soil conditions) found across the range of locations that exist within Great Britain. Individual species dominance is therefore usually related to that species successful adaptation to these conditions. However, biotic influences also impact upon species distribution, the most influential factor of which is the historic uses of woodland

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by man. For example when comparing Map 4 (which shows all areas of land predicted as suitable for ash) with Maps 1, 2 and 3 (which show the present distribution for ash) this point is illustrated, as where ash would grow and where it is growing are different. Here historical conversion of woodland to agriculture has removed large areas that could contain ash if woodland still existed and often where woodland does exist, other species are present.

Most broadleaved woodlands are composed of several tree species. Consequently, as well as a single species suitability to a particular site potentially determining its success at that site, its ability to compete with other tree species at that site will also affect its success in terms of canopy composition, with some species being more competitive than others at a given site. Growth rates of individual species can also be impacted upon differently through such competition. For example, if a species is less competitive than others in a region and is consistently found to be in the lower storeys of woodland, this will impact upon the average growth rates of that species within mixtures in that region. However if it is established in pure stands, the same species may exhibit much higher growth rates.

As species compete differently in different environments and under different woodland management regimes and events, individual species may dominate canopies in some situations, but not in others. The proportion of stands where a species dominates other species in the canopy in an area will impact upon its stocked area, mean growth rates, standing volume and tree numbers within that area. As historical management and environmental events may interact with species competitiveness, and multiple or single events through time can have differential impacts on different species competitiveness, such events can significantly alter the balance of competition between species within woodlands and in turn can alter woodland composition. Examples of this are a single disease event, such as Dutch elm disease, or multiple events, such as persistent browsing pressure, each of which can favour one species over another. Most woodland composition comes as a result of the combination of such influences. In any given region a range of competitive outcomes and canopy occupancies will occur for an individual species and this report gives a mean value for those. Later reports will examine within region variation of these factors.

The estimates of numbers of measurable trees by age class (Table 11) indicates that most trees within GB are aged between 11 and 60 years. A similar pattern is seen for stocked areas (Table 5). For both stocked area and tree numbers, trees over 80 years of age are significantly underrepresented. This is a key finding as this indicates that broadleaved trees in Great Britain have a significantly younger age profile than their natural lifespan would produce. This suggests that the age distribution found does not reflect that of a natural, undisturbed population of broadleaved trees. In undisturbed woodland, an age distribution with more representation of higher ages would be

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expected. This indicates the impact of significant historical events that will have removed older trees from the woodlands. This phenomenon is most likely due to the harvesting activity that occurred during the two World Wars of the 20th century, and also to some extent to the form of woodland management practised in earlier centuries. Standing volume is represented more evenly across the age classes, as smaller areas of older, larger trees will contribute more standing volume per unit area. This counterbalances their low representation by area in standing volume estimates.

For ash, the majority of trees are aged between 11 and 60 years (Table 20) and most standing volume is held within trees aged between 40 and 80 years, with the highest concentration in the 61-80 age range (Table 18). This again indicates that an event or series of events occurred in the past which would account for the low presence of ash trees of over 80 years of age in the current ash population. This is exhibited in a sharp decline in the stocked areas of ash trees of over 80 years of age. These events may have taken the form of the removal of many mature ash trees up until 80 years ago, or the increasing establishment of many new ash trees in woods that started some 60 to 80 years ago. There is also the possibility that in some ash stands shorter rotations are practised. Any of these types of activity, either in isolation or combination, could produce the age class distribution found.

Similarly the estimates of standing volume by mean stand size class for all broadleaves (Table 9), show that there is currently a sizeable concentration of standing broadleaved volume contained within trees in the 10–60 cm dbh size range, and relatively low amounts of standing volume in the stands of 60 cm dbh and above. This also reflects the low incidence of older trees. Most ash standing volume is found within the 20-60 cm size range (Table 19).

On the basis of the distribution of stocked area across age classes and size classes, ash is relatively younger and smaller than the population of broadleaves as a whole

It is the complex interaction of the factors described here that have influenced the evolution and current composition of broadleaved woodlands within Great Britain. The combination of environmental factors and past events have resulted in the currently observed species composition, age classes, tree numbers and standing volumes that are seen within these results.

Future work

This report has built on the woodland area reports and maps published in 2011 and the National Forest Inventory field survey programme, to provide preliminary estimates of standing volume, stocked areas and numbers of trees for broadleaved species with a special focus on ash. At present they represent the most up-to-date and most accurate source of information on quantities and distribution of ash in British broadleaved woodland and have been produced to contribute information to assist the management of the *Chalara fraxinea* outbreak. However, the reported estimates are based upon less field sample data than the intended target amount of sampling for NFI reports of broadleaved species. As a consequence, further work is required to refine and assess these findings. These preliminary estimates and observations will therefore be updated in 2013 by revised estimates and analysis based upon additional survey data, which will further explore the implications of the results in this report, with particular reference to potential broadleaved timber availability and carbon sequestration.

Knowledge of the composition and structure of woodland is an essential part of planning for biosecurity measures and sustainable forest management across a range of interests including, for example, biodiversity, climate change and the development of the forest products industry, and is an ongoing objective of the National Forest Inventory.

Official Statistics

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

National Forest Inventory Statistician: Alan Brewer

Glossary

Age class	A grouping of trees into specific age ranges for classification purposes.
Area (forest/woodland)	Area (forest/woodland): forest and woodland area is divided into net forest area – the land area actually covered by trees (in the National Forest Inventory defined to the drip line of the canopy); and gross forest area – which includes both the area covered by trees and the small open spaces (of less than 0.5 hectares) within the forest boundary (e.g. rides, glades, ponds).
Broadleaves	Trees and shrubs that belong to the angiosperm division of the plant kingdom (as distinct from the gymnosperm division that includes conifers). Most in the UK have laminar leaves and are deciduous. Sometimes referred to as 'hardwoods' but not all produce hardwood timber.
Canopy	The mass of foliage and branches formed collectively by the crowns of trees.
Clearfelling	Cutting down of an area of woodland (if it is within a larger area of woodland it is typically a felling greater than 0.25 hectares). Sometimes a scatter or small clumps of trees may be left standing within the felled area.
Conifers	Trees and shrubs that belong to the gymnosperm division of the plant kingdom (as distinct from the angiosperm division that includes broadleaves). Conifers mostly have needles or scale like leaves and, with the exception of larch, all are evergreen. Sometimes referred to as 'softwoods', they produce softwood timber.
dbh (diameter at breast height)	The diameter of a tree (overbark) at breast height, which is usually defined as 1.3 m along the axis of the stem from the ground.
Forest (and woodland)	Land predominately covered in trees (defined as land under stands of trees with a canopy cover of at least 20%, or the ability to achieve this, and with a minimum area of 0.5 hectares and minimum width of 20 m), whether in large tracts (generally called forests) or smaller areas known by a variety of terms (including woods, copses, spinneys or shelterbelts).

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Forestry Commission	The government department responsible for the regulation of forestry, implementing forestry policy and management of state forests in Great Britain. Forestry policy is devolved, with some common issues addressed on a GB or UK basis.
Forestry Commission estate	Forests, woodlands, open land and other property managed by the Forestry Commission.
Great Britain (GB)	England, Scotland and Wales.
Overbark	A term used in measurements of wood volume that include the bark.
Private sector estate	Forests and woodlands in GB not managed by the Forestry Commission. In the context of the National Forest Inventory, 'private sector' is used for convenience although it includes land owned or managed by bodies such as local authorities and charities.
Production forecast	A forecast of timber availability from the Forestry Commission (GB), the Forest Service, an agency within the Department of Agriculture and Rural Development in Northern Ireland) and potential timber availability from the private sector (UK).
Saplings	Young plants of tree species that have attained a height of at least 0.5 metres but have not yet attained a diameter at breast height of 4 centimetres. They may have grown through natural regeneration or have originally been raised in a nursery and planted out as seedlings or saplings.
Seedlings	Young plants of tree species that have not yet attained a height of 0.5 metres. They may have grown through natural regeneration or have been raised in a nursery and planted out.
Softwood	Wood of coniferous trees or the conifers themselves.
Stand	A collection of trees, generally contained within a contiguous area of land, of relatively uniform structure. The structure of a stand may be of a simple nature, such as that composed of a single even-aged storey of a single species, or complex, involving multiple storeys or heights, variable ages and multiple species.

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Standard error (SE)	The measure of the margin of error associated with an estimate as a result of sampling from a population with statistical variability. Larger standard errors indicate less precision in the estimate. Standard errors in this report are quoted in relative terms (i.e. as percentages of the value of the estimate).
Standing volume	A measurement of timber volume within standing trees (but also including windblown trees), usually expressed as cubic metres overbark standing (m ³ obs). In this report, standing volume is defined as live stemwood and branchwood to 7 cm top diameter and at least 3 m in length. It excludes roots, below ground stump material, small branches, foliage and deadwood. For private sector woodland only, it also excludes standing volume in trees in woodlands of less than 0.5 hectares. In this report, standing volume is used as a measure of the physical size of a tree or population of trees. In the context of production forestry, it is indicative of the volume of usable timber in standing trees.
Stemwood	The volume of wood in stems, with stems being defined internationally as the above-ground part of the main shoot (or offshoots) with apical dominance. In GB stemwood includes wood from the stump up to 7 cm top diameter of the main stem and sometimes branchwood at least 3 m in length with a minimum top diameter of 7 cm.
Stocked area	The area stocked with living trees. The stocked areas in this report are quoted in gross terms for the Forestry Commission estate and in net terms for the private sector estate (see definitions of Area above).
Sustainable forest management	The stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity and vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions at local, national and global levels, and that does not cause damage to other ecosystems.
Thinning	The removal of a proportion of trees in a forest after canopy closure, usually to promote growth and greater value in the remaining trees.

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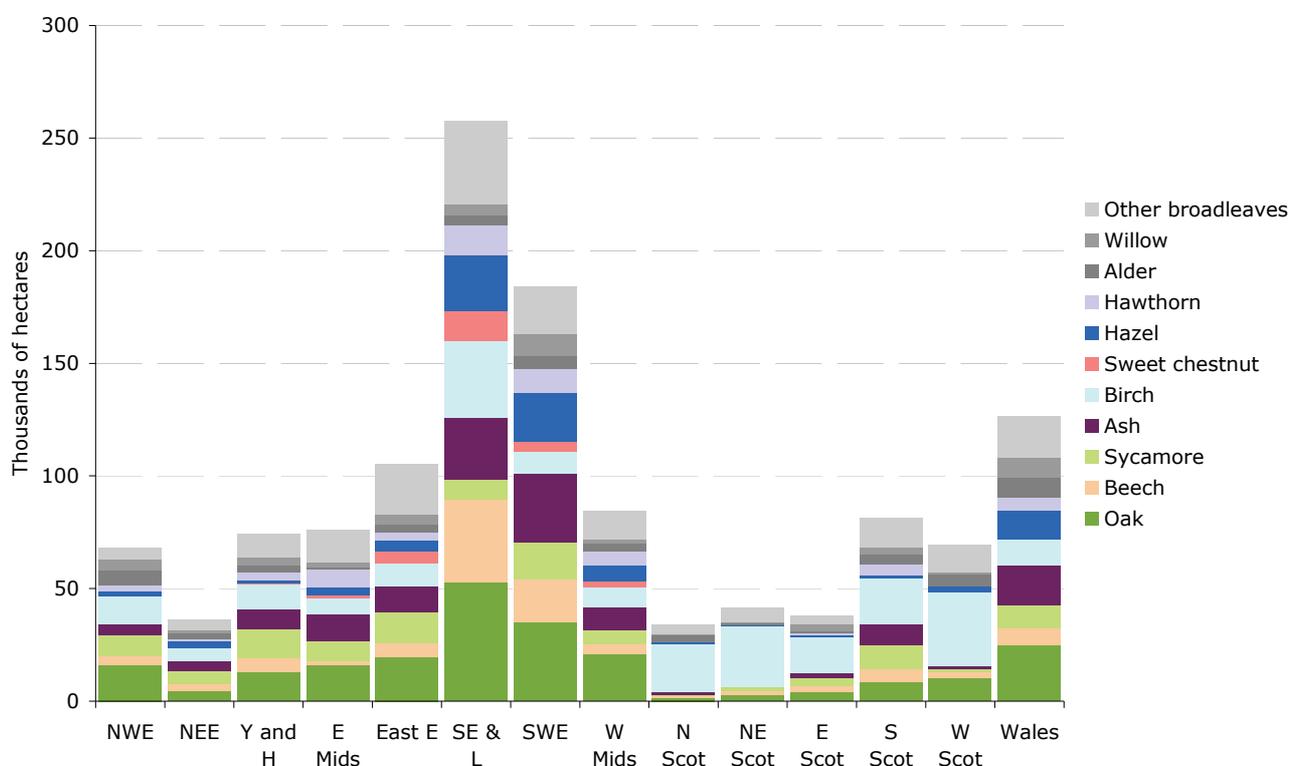
Top diameter	Diameter of the smaller (top) end of a log, often used to define different categories of wood products (e.g. sawlogs, roundwood, pulp) and merchantable timber.
Top height	The mean total height of the 100 largest dbh trees per hectare.
Yield class (YC):	A classification based on tree species, height growth (top height) and tree age, used to assess the volume production of a stand of trees. It reflects the potential productivity of the site for the tree species growing on it.

Appendix A: regional tables and figures

Broadleaves

Stocked area as at 31 March 2011

Figure A.1 Stocked area by principal broadleaved species for NFI regions



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Table A.1 Stocked area by principal broadleaved species for NFI regions

Principal species	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
North West England				
All broadleaves	2.7	65.6	3	68.3
Oak	0.5	15.5	11	16.0
Beech	0.2	4.1	20	4.3
Sycamore	0.1	8.9	15	8.9
Ash	0.2	5.1	15	5.2
Birch	0.6	11.6	12	12.1
Sweet chestnut	0.0	0.1	64	0.1
Hazel	0.1	2.0	20	2.1
Hawthorn	0.0	2.8	18	2.8
Alder	0.0	6.6	18	6.6
Willow	0.0	4.6	27	4.6
Other broadleave	1.1	4.1	15	5.2
North East England				
All broadleaves	2.4	33.8	6	36.2
Oak	0.1	4.7	21	4.8
Beech	0.1	2.6	25	2.7
Sycamore	0.1	5.7	20	5.7
Ash	0.0	4.4	21	4.4
Birch	0.1	5.9	17	6.0
Sweet chestnut	0.0	0.0	-	0.0
Hazel	0.0	3.1	26	3.1
Hawthorn	0.0	0.8	44	0.8
Alder	0.0	2.7	24	2.8
Willow	0.0	1.2	46	1.2
Other broadleave	2.0	2.8	18	4.8
Yorkshire and Humber				
All broadleaves	2.7	71.4	3	74.1
Oak	0.4	12.6	10	13.0
Beech	0.3	5.5	14	5.9
Sycamore	0.3	12.9	8	13.2
Ash	0.2	8.6	10	8.8
Birch	0.6	10.5	12	11.1
Sweet chestnut	0.0	0.3	48	0.3
Hazel	0.0	1.3	19	1.3
Hawthorn	0.0	3.5	15	3.5
Alder	0.0	3.4	16	3.4
Willow	0.0	3.3	18	3.3
Other broadleave	0.9	9.4	8	10.4
East Midlands				
All broadleaves	7.1	68.8	3	75.8
Oak	2.9	13.3	12	16.3
Beech	0.4	0.9	32	1.3
Sycamore	0.2	9.0	16	9.2
Ash	0.9	11.0	12	12.0
Birch	0.9	6.1	20	7.0
Sweet chestnut	0.1	1.2	46	1.2
Hazel	0.0	3.4	21	3.4
Hawthorn	0.0	8.3	16	8.3
Alder	0.0	0.7	44	0.7
Willow	0.0	2.3	38	2.3
Other broadleave	1.6	12.5	11	14.1

Principal species	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
East England				
All broadleaves	3.9	101.7	3	105.6
Oak	0.9	18.5	12	19.5
Beech	0.9	5.4	20	6.3
Sycamore	0.1	13.7	15	13.8
Ash	0.2	11.1	13	11.3
Birch	0.5	9.6	18	10.1
Sweet chestnut	0.1	5.6	25	5.6
Hazel	0.0	4.6	26	4.6
Hawthorn	0.0	3.8	18	3.8
Alder	0.1	3.4	33	3.4
Willow	0.0	4.5	28	4.5
Other broadleave	1.0	21.5	10	22.6
South East and London				
All broadleaves	17.4	240.8	2	258.3
Oak	6.3	46.7	6	53.0
Beech	7.1	29.8	8	36.8
Sycamore	0.2	8.4	14	8.5
Ash	0.4	27.3	7	27.7
Birch	1.1	32.7	7	33.7
Sweet chestnut	0.2	13.2	12	13.5
Hazel	0.0	24.9	8	24.9
Hawthorn	0.0	13.3	11	13.3
Alder	0.1	3.9	20	4.0
Willow	0.0	5.2	16	5.2
Other broadleave	2.1	34.7	6	36.8
South West England				
All broadleaves	10.6	172.7	3	183.3
Oak	3.4	31.8	7	35.2
Beech	3.1	15.8	11	18.9
Sycamore	0.1	16.1	10	16.2
Ash	0.6	30.0	7	30.5
Birch	0.5	9.2	12	9.7
Sweet chestnut	0.4	4.1	21	4.4
Hazel	0.1	22.0	8	22.1
Hawthorn	0.0	10.5	16	10.5
Alder	0.1	5.6	17	5.7
Willow	0.0	10.0	14	10.0
Other broadleave	2.4	18.6	10	21.0
West Midlands				
All broadleaves	3.2	80.9	3	84.1
Oak	1.1	19.8	12	20.8
Beech	0.5	3.9	32	4.4
Sycamore	0.1	6.2	23	6.2
Ash	0.2	10.3	14	10.5
Birch	0.4	8.0	18	8.4
Sweet chestnut	0.1	2.5	35	2.6
Hazel	0.0	7.5	19	7.5
Hawthorn	0.0	6.3	21	6.3
Alder	0.0	3.0	28	3.0
Willow	0.0	1.9	26	1.9
Other broadleave	0.9	11.6	16	12.4

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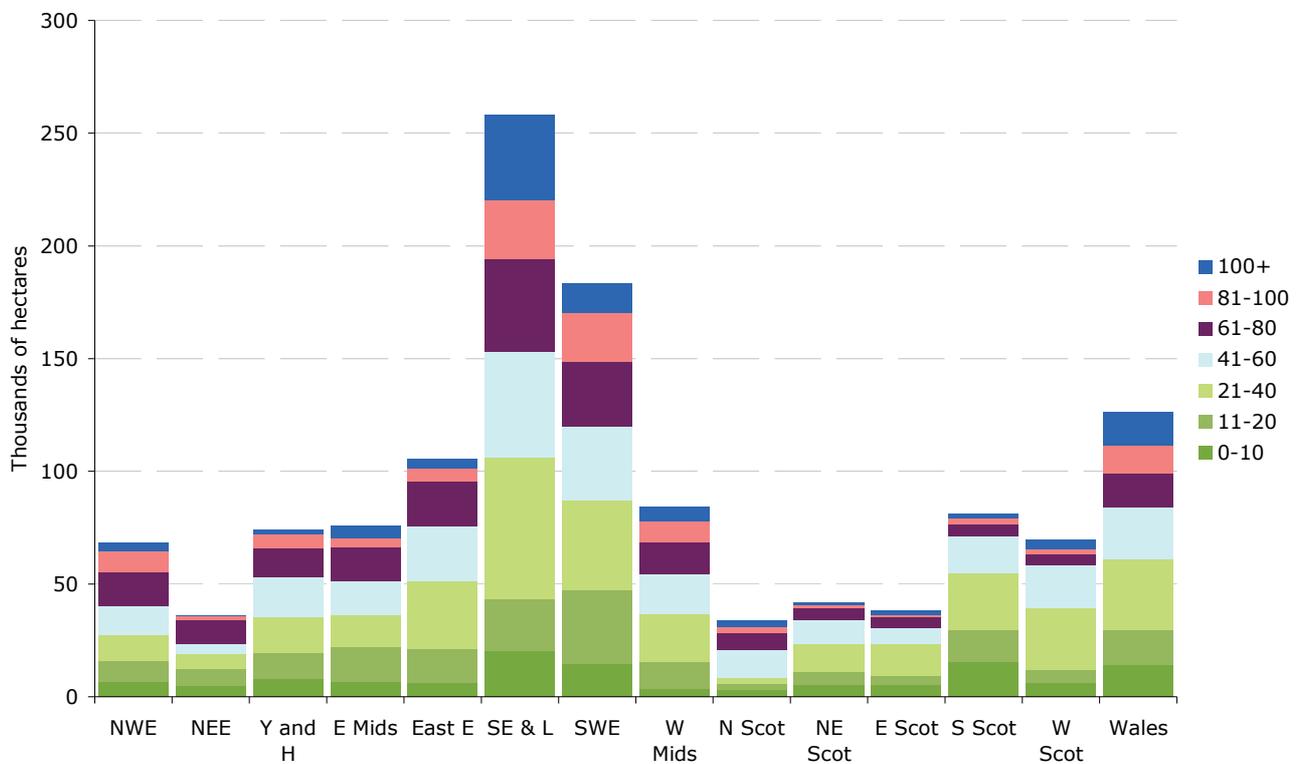
Table A.1 (continued)

Principal species	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
North Scotland				
All broadleaves	4.3	29.6	6	33.9
Oak	0.1	1.2	55	1.3
Beech	0.0	0.8	60	0.8
Sycamore	0.0	0.5	79	0.5
Ash	0.0	1.1	45	1.1
Birch	2.7	18.9	8	21.6
Sweet chestnut	0.0	0.0	-	0.0
Hazel	0.0	0.9	72	0.9
Hawthorn	0.0	0.0	-	0.0
Alder	0.1	2.8	36	2.9
Willow	0.0	0.6	41	0.6
Other broadleaf	1.3	2.9	25	4.2
North East Scotland				
All broadleaves	2.7	39.1	6	41.8
Oak	0.1	2.5	40	2.6
Beech	0.1	2.0	44	2.1
Sycamore	0.0	1.4	41	1.4
Ash	0.0	0.2	42	0.3
Birch	0.9	26.1	8	27.0
Sweet chestnut	0.0	0.0	-	0.0
Hazel	0.0	0.4	73	0.5
Hawthorn	0.0	0.0	52	0.0
Alder	0.1	0.7	45	0.7
Willow	0.0	0.6	42	0.6
Other broadleaf	1.4	5.0	17	6.5
East Scotland				
All broadleaves	1.6	36.5	4	38.1
Oak	0.2	3.7	22	3.8
Beech	0.1	2.9	22	3.1
Sycamore	0.1	3.6	18	3.7
Ash	0.1	1.7	25	1.8
Birch	0.5	15.7	9	16.2
Sweet chestnut	0.0	0.0	-	0.0
Hazel	0.0	0.5	29	0.5
Hawthorn	0.0	0.9	37	0.9
Alder	0.0	1.2	33	1.3
Willow	0.0	3.0	19	3.0
Other broadleaf	0.6	3.2	16	3.8

Principal species	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
South Scotland				
All broadleaves	6.8	74.5	5	81.4
Oak	0.6	7.9	14	8.5
Beech	0.2	5.5	18	5.7
Sycamore	0.1	10.6	11	10.8
Ash	0.1	9.0	15	9.1
Birch	0.7	19.9	10	20.6
Sweet chestnut	0.0	0.0	-	0.0
Hazel	0.0	1.2	33	1.2
Hawthorn	0.0	4.9	25	4.9
Alder	0.1	4.3	20	4.4
Willow	0.0	3.2	18	3.2
Other broadleaf	5.1	7.9	13	13.0
West Scotland				
All broadleaves	12.0	57.8	6	69.8
Oak	1.5	8.9	21	10.4
Beech	0.2	2.5	32	2.6
Sycamore	0.1	1.4	55	1.4
Ash	0.2	1.1	43	1.3
Birch	4.5	28.0	12	32.4
Sweet chestnut	0.0	0.0	-	0.0
Hazel	0.2	2.7	29	2.9
Hawthorn	0.0	0.2	53	0.2
Alder	0.3	4.7	24	5.0
Willow	0.0	1.2	28	1.2
Other broadleaf	5.1	6.9	21	12.1
Wales				
All broadleaves	13.6	112.6	3	126.2
Oak	2.4	22.5	10	24.9
Beech	1.7	6.1	20	7.8
Sycamore	0.1	9.9	16	9.9
Ash	0.4	17.2	11	17.6
Birch	1.1	10.3	13	11.4
Sweet chestnut	0.0	0.4	77	0.5
Hazel	0.0	12.8	13	12.8
Hawthorn	0.0	5.4	20	5.4
Alder	0.1	9.0	15	9.1
Willow	0.0	8.9	17	8.9
Other broadleaf	7.8	10.4	13	18.2

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Figure A.2 Stocked area by age class of all broadleaved species for NFI regions



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Table A.2 Stocked area by age class of all broadleaved species for NFI regions

Age class (years)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
North West England				
0-10	0.7	6.2	17	6.8
11-20	0.3	8.9	16	9.1
21-40	0.3	11.1	13	11.4
41-60	0.5	12.4	14	12.9
61-80	0.5	14.7	12	15.2
81-100	0.1	9.0	16	9.2
100+	0.4	3.4	30	3.8
Total	2.7	65.6	3	68.3
North East England				
0-10	1.0	3.9	37	4.9
11-20	0.6	7.0	21	7.6
21-40	0.4	6.4	19	6.8
41-60	0.2	3.8	23	4.0
61-80	0.2	10.8	15	11.0
81-100	0.1	1.7	30	1.7
100+	0.0	0.1	48	0.2
Total	2.4	33.8	6	36.2
Yorkshire and Humber				
0-10	0.1	7.7	16	7.8
11-20	0.3	11.6	10	11.9
21-40	0.5	15.1	9	15.6
41-60	0.8	17.0	9	17.8
61-80	0.6	11.9	11	12.5
81-100	0.2	6.4	14	6.6
100+	0.2	1.8	38	1.9
Total	2.7	71.4	3	74.1
East Midlands				
0-10	0.6	5.9	22	6.4
11-20	0.7	14.7	12	15.4
21-40	0.8	13.7	14	14.4
41-60	1.5	13.6	14	15.2
61-80	2.4	12.4	15	14.8
81-100	0.7	3.0	29	3.8
100+	0.3	5.4	24	5.8
Total	7.1	68.8	3	75.8

Age class (years)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
East England				
0-10	0.1	6.1	19	6.2
11-20	0.2	14.8	15	15.0
21-40	0.5	29.6	10	30.0
41-60	1.3	23.1	12	24.4
61-80	1.3	18.4	12	19.6
81-100	0.4	5.7	24	6.1
100+	0.2	4.0	28	4.2
Total	3.9	101.7	3	105.6
South East England and London				
0-10	0.5	19.7	12	20.3
11-20	0.9	22.0	8	22.8
21-40	0.8	62.0	5	62.7
41-60	3.8	43.5	6	47.3
61-80	3.6	37.5	7	41.1
81-100	1.1	25.0	9	26.2
100+	6.7	31.2	8	37.9
Total	17.4	240.8	2	258.3
South West England				
0-10	0.4	14.2	13	14.5
11-20	0.5	32.3	8	32.9
21-40	1.0	38.9	8	39.9
41-60	3.2	29.4	7	32.6
61-80	2.9	26.0	9	28.9
81-100	0.8	20.9	10	21.7
100+	1.9	11.1	12	12.9
Total	10.6	172.7	3	183.3
West Midlands				
0-10	0.2	3.1	29	3.3
11-20	0.5	11.9	14	12.4
21-40	0.6	20.4	12	21.0
41-60	1.0	16.8	15	17.8
61-80	0.4	13.5	16	13.9
81-100	0.3	8.9	22	9.2
100+	0.2	6.3	28	6.5
Total	3.2	80.9	3	84.1

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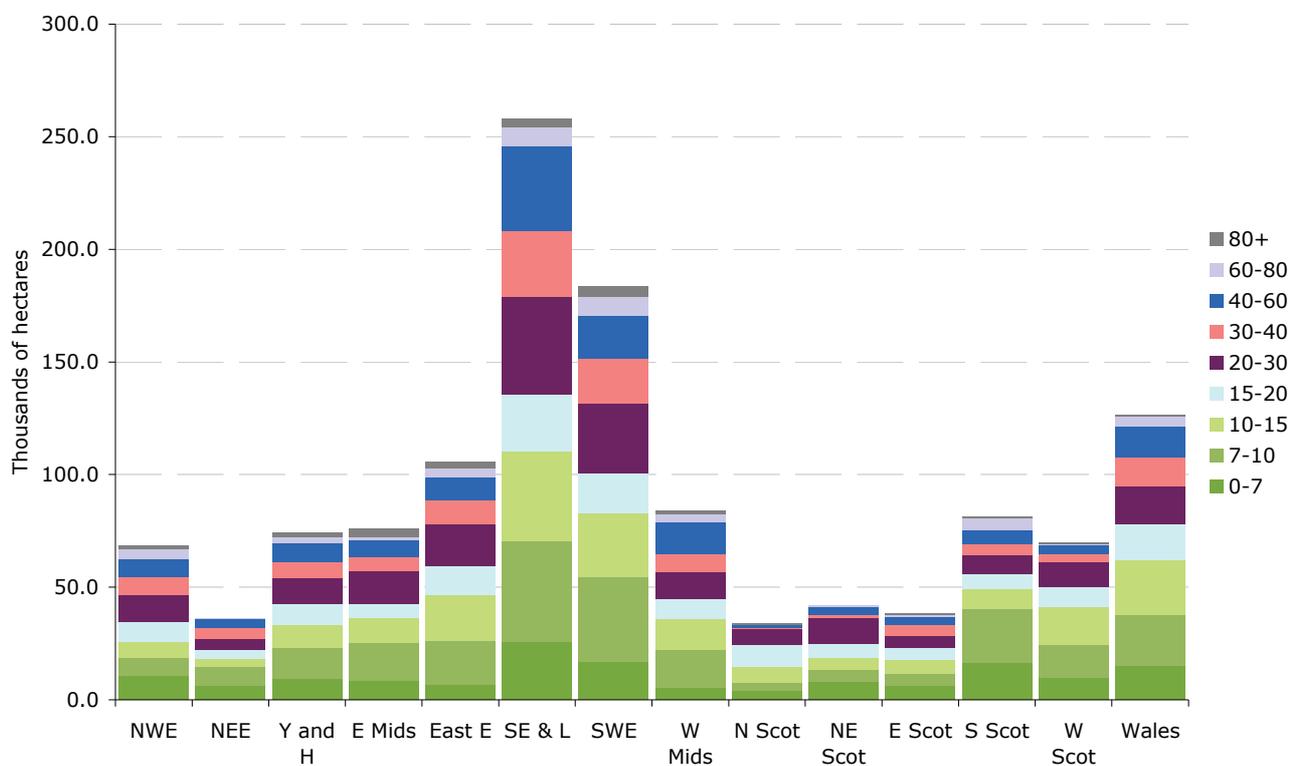
Table A.2 (continued)

Age class (years)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
North Scotland				
0-10	0.6	2.3	38	2.9
11-20	0.4	2.7	31	3.1
21-40	0.5	1.7	41	2.3
41-60	0.7	11.9	22	12.6
61-80	1.5	5.6	32	7.1
81-100	0.3	2.9	52	3.2
100+	0.3	2.5	36	2.7
Total	4.3	29.6	6	33.9
North East Scotland				
0-10	0.7	4.8	25	5.5
11-20	0.7	4.7	22	5.4
21-40	0.5	11.9	15	12.3
41-60	0.4	10.5	18	10.9
61-80	0.2	5.2	30	5.4
81-100	0.1	0.9	80	1.0
100+	0.1	1.2	52	1.2
Total	2.7	39.1	6	41.8
East Scotland				
0-10	0.2	5.1	20	5.4
11-20	0.2	3.8	15	4.0
21-40	0.3	13.9	10	14.2
41-60	0.2	6.8	15	7.1
61-80	0.3	4.3	21	4.7
81-100	0.1	0.8	41	0.9
100+	0.1	1.7	38	1.8
Total	1.6	36.5	4	38.1

Age class (years)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
South Scotland				
0-10	2.3	13.1	15	15.4
11-20	1.9	12.6	12	14.5
21-40	1.4	23.5	10	24.9
41-60	0.4	16.0	12	16.4
61-80	0.3	5.2	26	5.5
81-100	0.1	2.4	36	2.5
100+	0.4	1.7	31	2.2
Total	6.8	74.5	5	81.4
West Scotland				
0-10	1.4	4.7	27	6.1
11-20	1.3	4.6	26	5.9
21-40	1.8	25.5	12	27.3
41-60	1.7	17.2	17	18.8
61-80	1.3	3.9	37	5.3
81-100	1.4	1.0	54	2.3
100+	3.1	0.9	84	4.0
Total	12.0	57.8	6	69.8
Wales				
0-10	4.0	9.9	17	13.9
11-20	2.1	13.7	12	15.8
21-40	1.6	29.6	9	31.2
41-60	2.2	21.2	11	23.4
61-80	1.6	13.0	16	14.7
81-100	0.7	11.7	17	12.4
100+	1.4	13.5	15	15.0
Total	13.6	112.6	3	126.2

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Figure A.3 Stocked area by mean stand dbh class of all broadleaved species for NFI regions



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Table A.3 Stocked area by mean stand dbh class of all broadleaved species for NFI regions

Mean stand DBH (cm)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
North West England				
0-7	0.7	9.9	15	10.6
7-10	0.5	7.7	13	8.2
10-15	0.8	6.2	14	7.0
15-20	0.4	8.4	16	8.8
20-30	0.3	11.6	12	11.9
30-40	0.0	8.2	16	8.2
40-60	0.0	7.7	16	7.7
60-80	0.0	4.4	25	4.4
80+	0.0	1.6	43	1.6
Total	2.7	65.6	3	68.3
North East England				
0-7	1.1	5.1	28	6.3
7-10	0.7	7.4	17	8.1
10-15	0.2	3.7	21	3.9
15-20	0.1	3.8	20	3.9
20-30	0.2	4.6	17	4.8
30-40	0.1	4.9	20	4.9
40-60	0.0	3.9	19	4.0
60-80	0.0	0.2	35	0.3
80+	0.0	0.1	85	0.1
Total	2.4	33.8	6	36.2
Yorkshire and Humber				
0-7	0.2	9.2	13	9.4
7-10	0.4	13.3	8	13.7
10-15	0.2	9.8	10	10.0
15-20	0.3	9.1	11	9.4
20-30	0.7	10.9	9	11.6
30-40	0.5	6.5	12	7.0
40-60	0.2	8.3	12	8.5
60-80	0.1	2.3	26	2.4
80+	0.0	2.1	34	2.1
Total	2.7	71.4	3	74.1
East Midlands				
0-7	0.8	7.9	18	8.7
7-10	0.9	15.6	10	16.5
10-15	0.8	10.2	13	11.0
15-20	1.5	4.7	20	6.2
20-30	1.4	13.5	11	14.9
30-40	1.0	5.0	21	6.0
40-60	0.5	7.4	20	7.8
60-80	0.1	1.0	39	1.1
80+	0.1	3.5	31	3.6
Total	7.1	68.8	3	75.8

Mean stand DBH (cm)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
East England				
0-7	0.2	6.7	16	6.8
7-10	0.4	19.0	12	19.4
10-15	0.3	19.9	11	20.2
15-20	0.5	12.5	14	13.0
20-30	1.1	17.6	14	18.7
30-40	0.9	9.5	16	10.4
40-60	0.3	10.1	16	10.4
60-80	0.1	3.9	28	4.0
80+	0.0	2.7	34	2.7
Total	3.9	101.7	3	105.6
South East England and London				
0-7	0.7	24.8	10	25.5
7-10	1.2	43.8	6	45.0
10-15	1.3	38.6	6	39.8
15-20	1.8	23.5	8	25.3
20-30	6.8	36.2	6	43.1
30-40	3.8	25.8	8	29.6
40-60	1.4	35.9	7	37.3
60-80	0.3	8.4	14	8.7
80+	0.1	3.8	25	4.0
Total	17.4	240.8	2	258.3
South West England				
0-7	0.5	16.4	10	16.9
7-10	1.2	36.6	6	37.8
10-15	0.8	27.4	7	28.2
15-20	0.8	17.1	12	17.9
20-30	2.8	27.9	8	30.6
30-40	2.4	17.7	9	20.1
40-60	1.6	17.4	10	18.9
60-80	0.4	8.1	13	8.4
80+	0.1	4.3	20	4.4
Total	10.6	172.7	3	183.3
West Midlands				
0-7	0.4	4.8	21	5.2
7-10	0.8	16.0	12	16.8
10-15	0.3	13.8	14	14.1
15-20	0.3	8.2	16	8.4
20-30	0.6	11.7	15	12.4
30-40	0.6	7.4	20	8.0
40-60	0.2	13.8	16	14.0
60-80	0.1	3.8	31	3.8
80+	0.0	1.5	47	1.5
Total	3.2	80.9	3	84.1

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Table A.3 (continued)

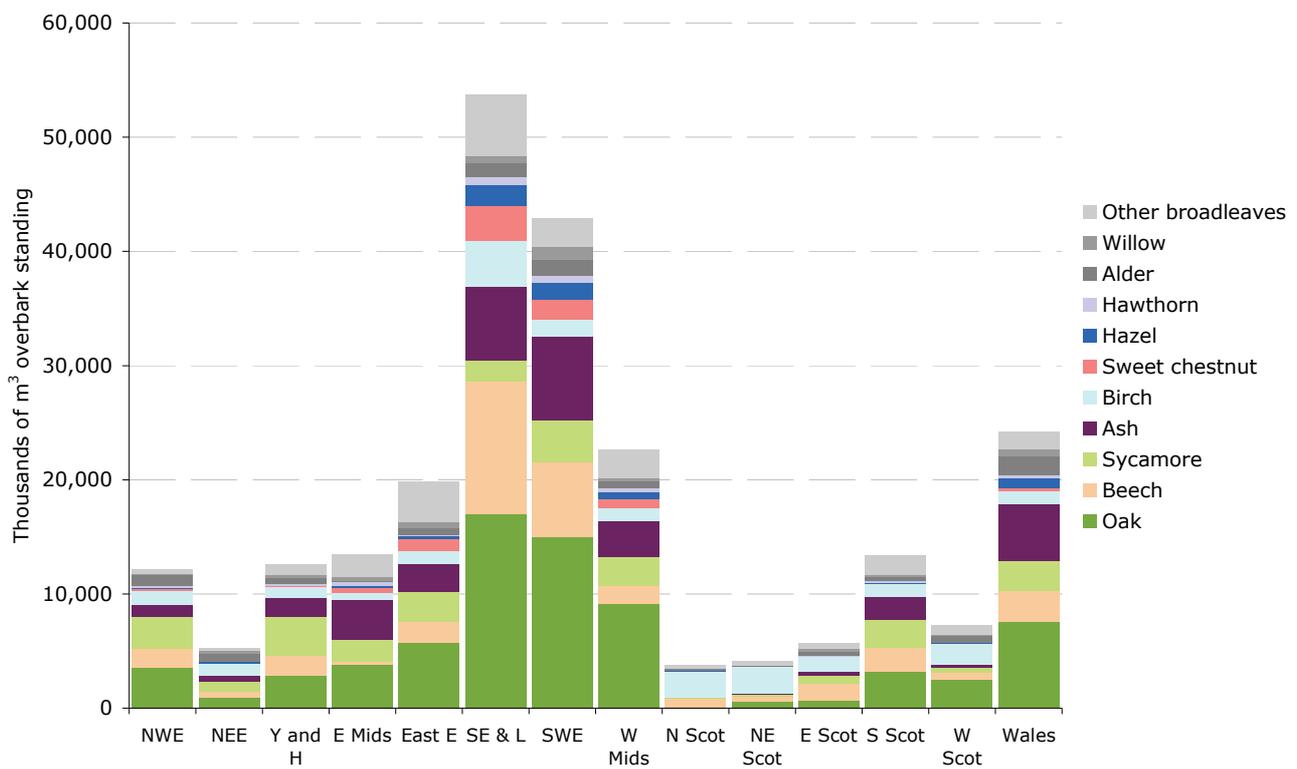
Mean stand DBH (cm)	Private sector		SE%	Total area (000 ha)
	FC area (000 ha)	area (000 ha)		
North Scotland				
0-7	0.6	3.4	29	4.1
7-10	0.8	2.8	33	3.5
10-15	1.9	5.2	28	7.1
15-20	0.9	8.6	22	9.5
20-30	0.1	7.3	24	7.3
30-40	0.0	0.4	59	0.4
40-60	0.0	1.3	49	1.3
60-80	0.0	0.0	93	0.0
80+	0.0	0.7	69	0.7
Total	4.3	29.6	6	33.9
North East Scotland				
0-7	0.7	7.4	19	8.1
7-10	1.0	4.4	21	5.4
10-15	0.2	5.1	23	5.2
15-20	0.3	5.8	25	6.1
20-30	0.2	11.4	16	11.6
30-40	0.1	1.4	41	1.6
40-60	0.1	3.0	36	3.1
60-80	0.0	0.7	51	0.7
80+	0.0	0.0	108	0.0
Total	2.7	39.1	6	41.8
East Scotland				
0-7	0.3	5.9	15	6.2
7-10	0.3	5.0	13	5.3
10-15	0.3	5.7	14	6.0
15-20	0.3	5.3	16	5.6
20-30	0.1	5.1	17	5.2
30-40	0.0	4.9	18	5.0
40-60	0.1	3.4	25	3.5
60-80	0.0	0.7	52	0.7
80+	0.0	0.4	57	0.4
Total	1.6	36.5	4	38.1

Mean stand DBH (cm)	Private sector		SE%	Total area (000 ha)
	FC area (000 ha)	area (000 ha)		
South Scotland				
0-7	2.7	13.7	14	16.5
7-10	2.5	21.2	10	23.7
10-15	0.8	8.4	12	9.2
15-20	0.4	6.0	20	6.4
20-30	0.3	8.0	16	8.3
30-40	0.1	4.7	18	4.8
40-60	0.0	6.6	20	6.6
60-80	0.0	5.2	26	5.2
80+	0.0	0.6	54	0.6
Total	6.8	74.5	5	81.4
West Scotland				
0-7	1.7	8.2	20	9.9
7-10	1.9	12.7	20	14.7
10-15	3.4	13.4	15	16.7
15-20	3.7	5.1	26	8.8
20-30	1.1	10.0	22	11.1
30-40	0.1	3.2	35	3.3
40-60	0.1	4.1	33	4.1
60-80	0.0	0.6	75	0.6
80+	0.0	0.4	56	0.4
Total	12.0	57.8	6	69.8
Wales				
0-7	4.4	10.4	16	14.8
7-10	2.6	20.4	10	23.0
10-15	2.0	22.1	10	24.1
15-20	2.2	13.9	14	16.1
20-30	1.4	15.4	12	16.8
30-40	0.6	12.2	13	12.7
40-60	0.4	13.5	14	13.9
60-80	0.1	4.2	25	4.3
80+	0.0	0.4	68	0.5
Total	13.6	112.6	3	126.2

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Standing volume as at 31 March 2011

Figure A.4 Standing volume by principal broadleaved species for NFI regions



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Table A.4 Standing volume by principal broadleaved species for NFI regions

Principal species	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
North West England				
All broadleaves	346	11,905	8	12,252
Oak	115	3,482	17	3,597
Beech	38	1,535	39	1,573
Sycamore	12	2,850	22	2,862
Ash	25	960	20	985
Birch	47	1,253	20	1,301
Sweet chestnut	6	95	84	101
Hazel	22	128	28	150
Hawthorn	0	118	29	118
Alder	5	1,008	19	1,014
Willow	0	123	27	123
Other broadleave	75	280	27	355
North East England				
All broadleaves	111	5,186	10	5,297
Oak	10	939	28	948
Beech	21	463	26	484
Sycamore	6	866	29	872
Ash	0	577	23	578
Birch	17	971	23	988
Sweet chestnut	0	0	-	0
Hazel	0	244	28	244
Hawthorn	0	20	29	20
Alder	7	615	30	622
Willow	0	276	59	276
Other broadleave	49	193	19	243
Yorkshire and Humber				
All broadleaves	286	12,272	6	12,557
Oak	51	2,844	15	2,896
Beech	48	1,659	17	1,707
Sycamore	40	3,348	14	3,388
Ash	25	1,597	13	1,622
Birch	44	900	13	944
Sweet chestnut	1	107	60	107
Hazel	0	75	26	75
Hawthorn	0	164	15	164
Alder	3	550	21	553
Willow	0	195	22	195
Other broadleave	74	852	16	925
East Midlands				
All broadleaves	913	12,516	8	13,429
Oak	471	3,366	16	3,838
Beech	82	147	34	229
Sycamore	24	1,913	21	1,937
Ash	131	3,380	21	3,510
Birch	57	528	22	585
Sweet chestnut	10	435	50	445
Hazel	1	188	23	189
Hawthorn	0	341	22	341
Alder	1	134	68	135
Willow	0	268	43	268
Other broadleave	135	1,816	22	1,951

Principal species	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
East England				
All broadleaves	525	19,325	7	19,851
Oak	147	5,588	15	5,735
Beech	157	1,690	22	1,848
Sycamore	15	2,602	22	2,617
Ash	34	2,454	19	2,488
Birch	48	991	22	1,039
Sweet chestnut	12	1,091	32	1,104
Hazel	3	224	26	226
Hawthorn	0	94	20	94
Alder	9	617	54	626
Willow	0	549	52	549
Other broadleave	101	3,425	21	3,526
South East and London				
All broadleaves	4,027	49,418	4	53,445
Oak	1,809	15,233	7	17,043
Beech	1,730	9,836	11	11,565
Sycamore	19	1,838	21	1,857
Ash	56	6,362	9	6,418
Birch	91	3,999	9	4,089
Sweet chestnut	38	2,980	13	3,018
Hazel	2	1,855	12	1,857
Hawthorn	0	689	13	689
Alder	22	1,186	27	1,209
Willow	0	584	18	584
Other broadleave	260	5,088	13	5,348
South West England				
All broadleaves	1,592	40,685	5	42,278
Oak	547	14,422	10	14,970
Beech	603	5,990	17	6,593
Sycamore	19	3,605	14	3,624
Ash	76	7,332	8	7,408
Birch	40	1,398	14	1,437
Sweet chestnut	45	1,732	25	1,777
Hazel	4	1,507	14	1,511
Hawthorn	0	525	21	525
Alder	9	1,416	21	1,425
Willow	0	1,174	20	1,174
Other broadleave	250	2,228	16	2,478
West Midlands				
All broadleaves	347	22,311	8	22,658
Oak	129	9,012	17	9,141
Beech	76	1,476	36	1,552
Sycamore	8	2,555	37	2,563
Ash	20	3,133	22	3,154
Birch	30	1,072	26	1,101
Sweet chestnut	6	782	35	787
Hazel	2	662	27	664
Hawthorn	0	276	21	276
Alder	4	650	34	655
Willow	0	294	29	294
Other broadleave	72	2,413	30	2,485

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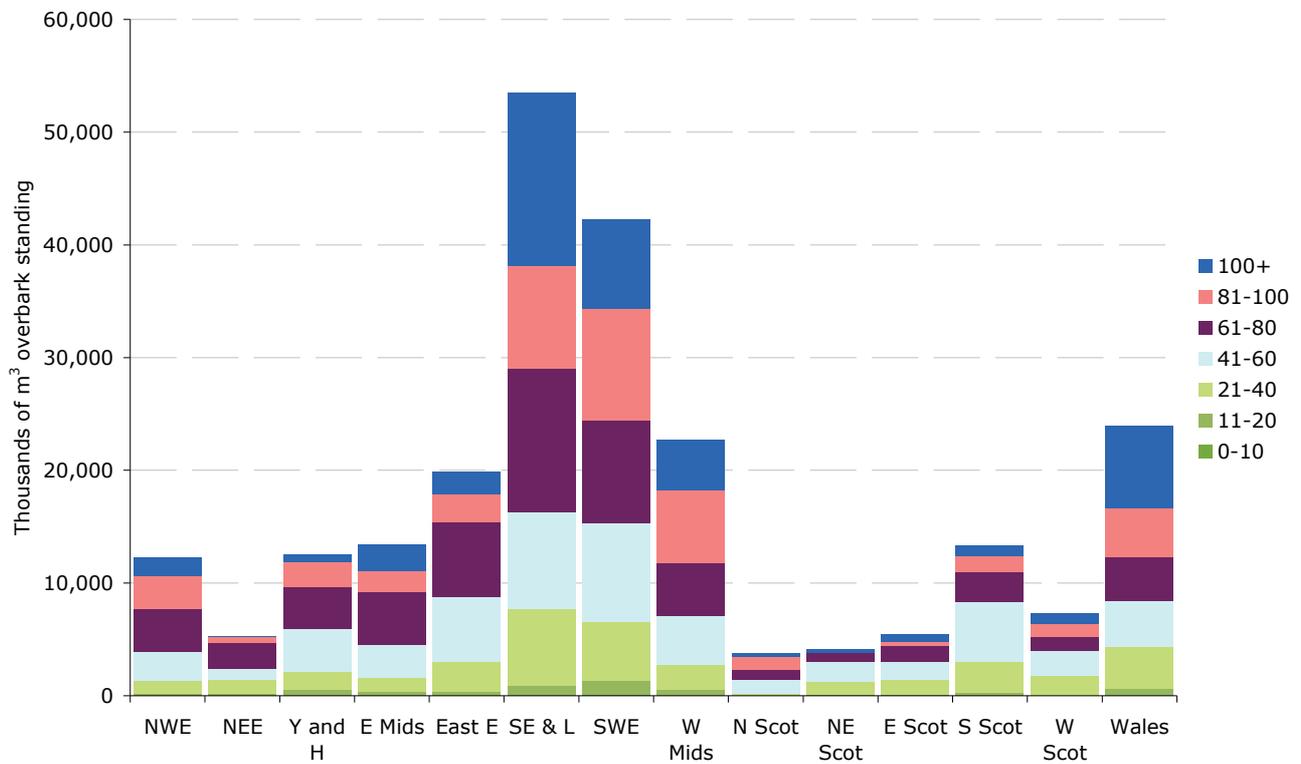
Table A.4 (continued)

Principal species	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
North Scotland				
All broadleaves	571	3,217	6	3,788
Oak	30	54	12	85
Beech	9	755	67	763
Sycamore	1	56	91	57
Ash	1	62	61	63
Birch	447	1,769	13	2,216
Sweet chestnut	0	0	-	0
Hazel	7	51	63	58
Hawthorn	0	0	-	0
Alder	9	237	42	246
Willow	0	41	57	41
Other broadleave	67	187	23	255
North East Scotland				
All broadleaves	221	3,931	11	4,152
Oak	8	560	61	568
Beech	29	451	42	480
Sycamore	4	182	55	186
Ash	2	10	90	12
Birch	78	2,321	10	2,399
Sweet chestnut	0	0	-	0
Hazel	0	22	91	22
Hawthorn	0	0	58	0
Alder	11	30	51	41
Willow	0	58	53	58
Other broadleave	89	269	25	358
East Scotland				
All broadleaves	173	5,287	10	5,460
Oak	15	628	35	643
Beech	21	1,506	29	1,527
Sycamore	11	676	24	687
Ash	2	392	46	394
Birch	68	1,176	11	1,244
Sweet chestnut	0	0	-	0
Hazel	0	24	33	24
Hawthorn	0	40	72	40
Alder	3	443	55	446
Willow	0	172	28	172
Other broadleave	53	406	37	459

Principal species	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
South Scotland				
All broadleaves	354	12,993	11	13,348
Oak	96	3,142	22	3,239
Beech	22	2,013	27	2,035
Sycamore	12	2,493	18	2,504
Ash	7	1,954	31	1,961
Birch	49	1,140	13	1,189
Sweet chestnut	0	0	-	0
Hazel	0	34	44	35
Hawthorn	0	137	23	137
Alder	6	421	25	427
Willow	0	95	24	95
Other broadleave	162	1,565	32	1,727
West Scotland				
All broadleaves	1,831	5,467	14	7,298
Oak	417	2,096	23	2,513
Beech	44	552	67	597
Sycamore	9	478	71	487
Ash	26	244	48	271
Birch	660	1,088	14	1,748
Sweet chestnut	0	0	-	0
Hazel	31	144	31	175
Hawthorn	0	10	78	10
Alder	43	555	55	598
Willow	0	27	40	27
Other broadleave	600	216	46	815
Wales				
All broadleaves	1,408	22,545	7	23,953
Oak	354	7,238	12	7,591
Beech	363	2,312	28	2,675
Sycamore	12	2,641	22	2,653
Ash	61	4,906	17	4,967
Birch	46	1,077	18	1,123
Sweet chestnut	7	283	85	290
Hazel	2	835	21	837
Hawthorn	0	271	25	271
Alder	18	1,633	17	1,650
Willow	0	641	31	641
Other broadleave	545	982	21	1,527

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Figure A.5 Standing volume by age class of all broadleaved species for NFI regions



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Table A.5 Standing volume by age class of all broadleaved species for NFI regions

Age class (years)	Private sector		SE%	Total volume (000 m ³ obs)
	FC volume (000 m ³ obs)	volume (000 m ³ obs)		
North West England				
0-10	0	3	54	3
11-20	2	185	32	187
21-40	12	1,135	16	1,147
41-60	80	2,502	19	2,582
61-80	95	3,709	14	3,805
81-100	39	2,829	20	2,868
100+	117	1,543	41	1,660
Total	346	11,905	8	12,252
North East England				
0-10	0	1	49	1
11-20	5	126	19	131
21-40	20	1,291	27	1,311
41-60	29	910	24	939
61-80	34	2,330	18	2,364
81-100	11	461	27	472
100+	11	68	49	79
Total	111	5,186	10	5,297
Yorkshire and Humber				
0-10	0	3	25	3
11-20	2	576	27	579
21-40	30	1,525	10	1,555
41-60	107	3,724	14	3,831
61-80	82	3,563	13	3,646
81-100	36	2,261	17	2,297
100+	28	619	39	647
Total	286	12,272	6	12,557
East Midlands				
0-10	0	3	57	3
11-20	9	375	20	384
21-40	43	1,117	17	1,160
41-60	217	2,714	15	2,931
61-80	417	4,326	19	4,742
81-100	145	1,701	26	1,846
100+	81	2,281	26	2,363
Total	913	12,516	8	13,429

Age class (years)	Private sector		SE%	Total volume (000 m ³ obs)
	FC volume (000 m ³ obs)	volume (000 m ³ obs)		
East England				
0-10	0	11	41	11
11-20	2	339	16	341
21-40	32	2,647	15	2,679
41-60	177	5,595	15	5,772
61-80	210	6,393	15	6,603
81-100	67	2,374	25	2,441
100+	38	1,967	29	2,005
Total	525	19,325	7	19,851
South East England and London				
0-10	0	14	42	14
11-20	13	819	14	833
21-40	44	6,821	7	6,865
41-60	584	8,050	8	8,634
61-80	701	11,961	9	12,662
81-100	250	8,890	11	9,140
100+	2,433	12,864	8	15,298
Total	4,027	49,418	3	53,445
South West England				
0-10	0	73	42	73
11-20	6	1,287	11	1,293
21-40	71	5,128	10	5,198
41-60	483	8,274	9	8,757
61-80	552	8,576	13	9,128
81-100	141	9,786	11	9,927
100+	339	7,562	16	7,901
Total	1,592	40,685	5	42,278
West Midlands				
0-10	0	5	70	5
11-20	7	503	20	509
21-40	43	2,221	16	2,264
41-60	149	4,149	20	4,298
61-80	66	4,647	21	4,713
81-100	45	6,375	26	6,420
100+	37	4,412	28	4,449
Total	347	22,311	8	22,658

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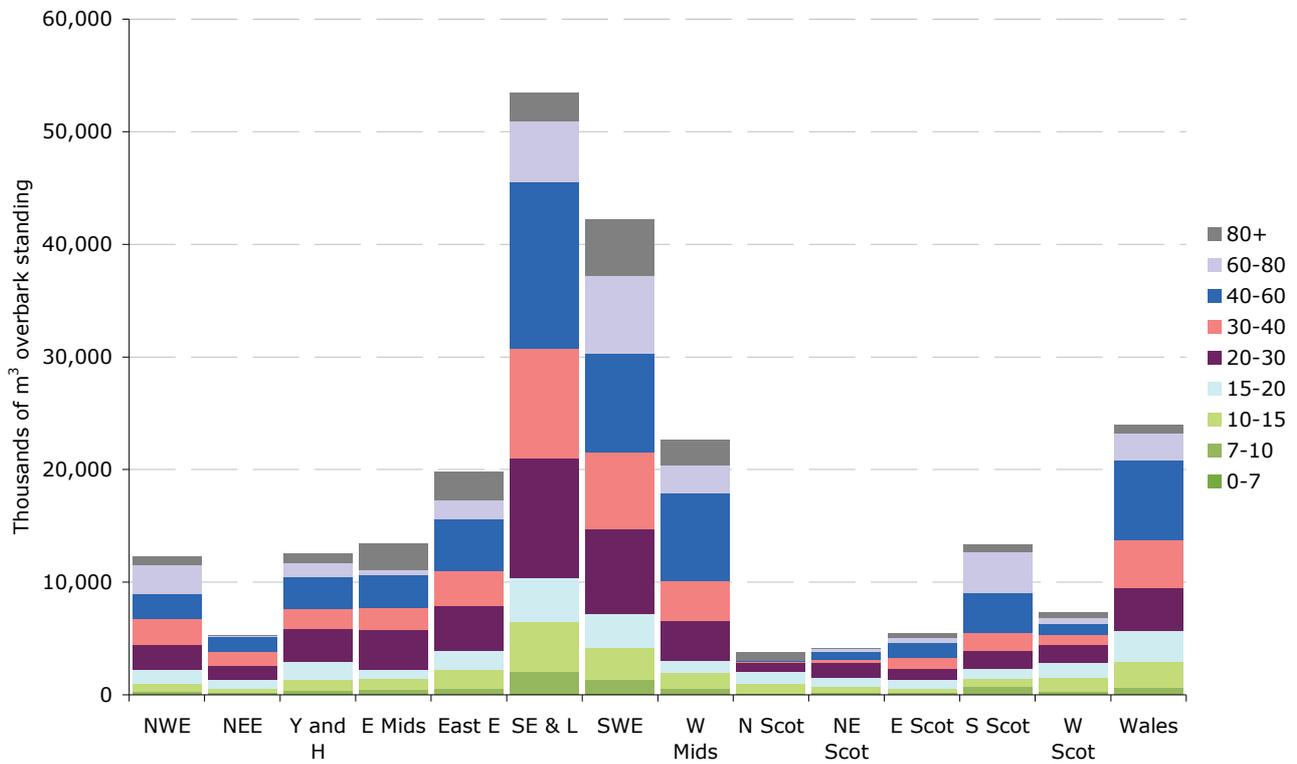
Table A.5 (continued)

Age class (years)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
North Scotland				
0-10	0	1	56	1
11-20	7	29	57	37
21-40	26	136	38	163
41-60	112	1,083	25	1,195
61-80	300	638	32	938
81-100	54	1,088	51	1,142
100+	71	241	35	312
Total	571	3,217	18	3,788
North East Scotland				
0-10	0	0	-	0
11-20	12	61	40	73
21-40	36	1,176	16	1,212
41-60	82	1,692	24	1,774
61-80	40	683	30	723
81-100	22	41	73	63
100+	28	278	56	306
Total	221	3,931	11	4,152
East Scotland				
0-10	0	2	33	2
11-20	2	113	26	115
21-40	19	1,315	15	1,334
41-60	40	1,514	22	1,554
61-80	65	1,417	30	1,482
81-100	22	245	42	266
100+	25	681	37	706
Total	173	5,287	10	5,460

Age class (years)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
South Scotland				
0-10	0	5	33	5
11-20	13	297	27	310
21-40	67	2,631	12	2,698
41-60	62	5,258	18	5,320
61-80	60	2,572	34	2,632
81-100	21	1,451	39	1,472
100+	131	781	44	912
Total	354	12,993	11	13,348
West Scotland				
0-10	0	0	-	0
11-20	9	19	35	29
21-40	123	1,632	25	1,755
41-60	263	1,909	20	2,172
61-80	265	1,018	46	1,283
81-100	308	807	60	1,115
100+	863	82	65	945
Total	1,831	5,467	14	7,298
Wales				
0-10	0	28	33	28
11-20	19	599	18	618
21-40	114	3,542	15	3,656
41-60	401	3,728	14	4,129
61-80	335	3,545	20	3,881
81-100	161	4,157	20	4,319
100+	377	6,945	20	7,322
Total	1,408	22,545	7	23,953

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Figure A.6 Standing volume by mean stand dbh class of all broadleaved species for NFI regions



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Table A.6 Standing volume by mean stand dbh class of all broadleaved species for NFI regions

Mean stand DBH (cm)	FC		Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)
North West England					
0-7	0	16	26		16
7-10	12	212	18		225
10-15	127	615	18		741
15-20	97	1,090	17		1,187
20-30	96	2,217	16		2,313
30-40	6	2,257	20		2,263
40-60	8	2,180	17		2,188
60-80	0	2,549	33		2,549
80+	0	769	38		769
Total	346	11,905	8		12,252
North East England					
0-7	0	12	35		12
7-10	14	180	14		195
10-15	28	295	17		323
15-20	22	812	26		833
20-30	24	1,222	19		1,246
30-40	14	1,204	18		1,218
40-60	5	1,271	23		1,276
60-80	3	169	38		172
80+	0	22	85		22
Total	111	5,186	10		5,297
Yorkshire and Humber					
0-7	0	19	20		19
7-10	11	387	9		398
10-15	22	882	10		904
15-20	27	1,616	15		1,643
20-30	84	2,796	15		2,880
30-40	69	1,730	13		1,799
40-60	38	2,778	13		2,816
60-80	27	1,267	29		1,294
80+	7	797	31		804
Total	286	12,272	6		12,557
East Midlands					
0-7	1	35	26		36
7-10	23	407	14		430
10-15	123	793	14		917
15-20	292	593	24		886
20-30	231	3,244	14		3,475
30-40	145	1,847	22		1,993
40-60	64	2,858	19		2,922
60-80	20	394	42		414
80+	13	2,344	35		2,357
Total	913	12,516	8		13,429

Mean stand DBH (cm)	FC		Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)
East England					
0-7	0	26	28		26
7-10	12	463	13		475
10-15	37	1,681	15		1,718
15-20	82	1,573	18		1,655
20-30	167	3,875	18		4,041
30-40	156	2,937	17		3,093
40-60	46	4,566	19		4,612
60-80	20	1,687	27		1,707
80+	4	2,518	29		2,523
Total	525	19,325	7		19,851
South East England and London					
0-7	4	115	20		118
7-10	32	1,880	8		1,912
10-15	189	4,214	8		4,403
15-20	343	3,627	9		3,970
20-30	1,992	8,599	7		10,591
30-40	1,116	8,659	10		9,775
40-60	279	14,502	8		14,780
60-80	54	5,300	15		5,355
80+	19	2,523	20		2,541
Total	4,027	49,418	3		53,445
South West England					
0-7	4	59	17		63
7-10	60	1,238	8		1,298
10-15	101	2,735	9		2,836
15-20	114	2,889	11		3,003
20-30	456	7,114	9		7,569
30-40	479	6,278	10		6,757
40-60	294	8,488	11		8,782
60-80	66	6,860	17		6,925
80+	19	5,024	23		5,043
Total	1,592	40,685	5		42,278
West Midlands					
0-7	4	24	36		29
7-10	25	438	15		463
10-15	45	1,445	16		1,489
15-20	39	1,014	23		1,053
20-30	99	3,403	21		3,502
30-40	90	3,518	26		3,607
40-60	36	7,695	19		7,731
60-80	7	2,525	27		2,532
80+	3	2,249	48		2,251
Total	347	22,311	8		22,658

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Table A.6 (continued)

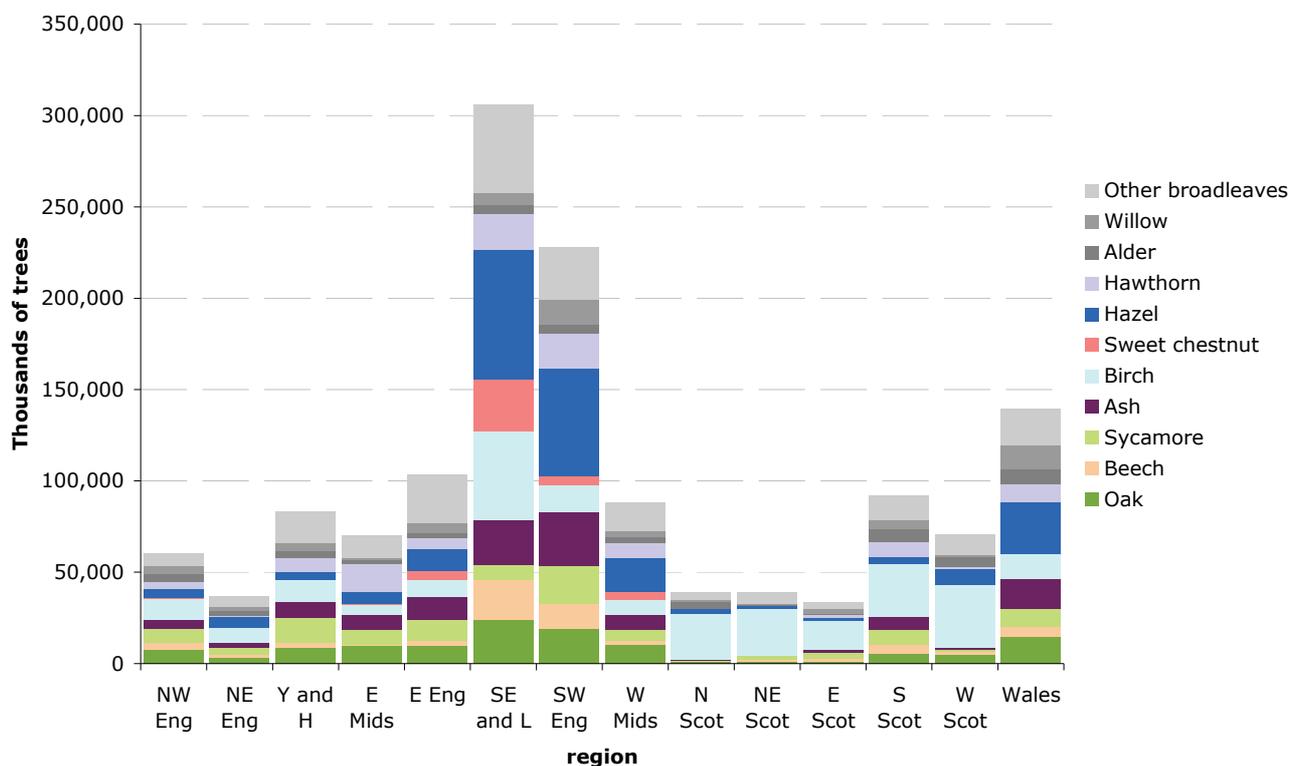
Mean stand DBH (cm)	FC		Private sector		Total	
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%
North Scotland						
0-7	0	1	60			1
7-10	18	74	35			93
10-15	326	582	35			907
15-20	193	905	28			1,098
20-30	31	703	21			734
30-40	0	65	53			65
40-60	1	153	43			154
60-80	0	2	93			3
80+	1	732	69			733
Total	571	3,217	18			3,788
North East Scotland						
0-7	1	4	51			5
7-10	29	185	21			214
10-15	27	450	23			477
15-20	68	712	24			780
20-30	50	1,347	17			1,397
30-40	28	219	43			248
40-60	15	664	52			679
60-80	3	334	57			337
80+	0	17	108			17
Total	221	3,931	11			4,152
East Scotland						
0-7	1	13	30			13
7-10	8	147	17			155
10-15	49	371	16			420
15-20	68	748	18			816
20-30	23	857	21			880
30-40	7	972	20			980
40-60	12	1,317	31			1,329
60-80	3	488	53			491
80+	2	374	58			376
Total	173	5,287	10			5,460

Mean stand DBH (cm)	FC		Private sector		Total	
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%
South Scotland						
0-7	0	27	34			27
7-10	46	573	14			619
10-15	111	709	15			820
15-20	89	763	19			851
20-30	87	1,497	17			1,584
30-40	16	1,564	24			1,580
40-60	1	3,614	23			3,615
60-80	1	3,561	27			3,562
80+	3	686	53			689
Total	354	12,993	11			13,348
West Scotland						
0-7	0	2	38			2
7-10	46	268	16			314
10-15	506	653	20			1,159
15-20	852	466	33			1,318
20-30	377	1,280	31			1,657
30-40	37	848	45			885
40-60	12	966	31			978
60-80	1	492	78			493
80+	0	492	67			492
Total	1,831	5,467	14			7,298
Wales						
0-7	3	13	27			15
7-10	55	536	13			592
10-15	301	2,002	13			2,303
15-20	498	2,209	19			2,707
20-30	330	3,563	14			3,893
30-40	117	4,086	15			4,203
40-60	80	7,030	18			7,110
60-80	20	2,390	25			2,409
80+	4	717	62			722
Total	1,408	22,545	7			23,953

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Number of measurable trees as at 31 March 2011

Figure A.7 Numbers of trees by principal broadleaved species for NFI regions



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Table A.7 Numbers of trees by principal broadleaved species for NFI regions

Principal species	FC	Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)
North West England				
All broadleaves	3,597.6	56,935.9	7	60,533.6
Oak	565.2	7,315.5	14	7,880.7
Beech	435.2	2,997.6	37	3,432.9
Sycamore	97.4	7,794.3	18	7,891.7
Ash	267.1	4,583.7	20	4,850.8
Birch	619.7	11,077.8	14	11,697.5
Sweet chestnut	9.2	51.5	72	60.7
Hazel	251.8	5,112.3	20	5,364.1
Hawthorn	0.0	3,383.9	16	3,383.9
Alder	53.2	4,719.6	24	4,772.9
Willow	0.0	3,996.9	25	3,996.9
Other broadleaf	1,298.7	5,456.1	18	6,754.8
North East England				
All broadleaves	2,029.1	34,488.1	11	36,517.2
Oak	41.6	3,193.3	22	3,234.9
Beech	72.4	1,491.6	31	1,564.0
Sycamore	24.8	3,812.7	20	3,837.6
Ash	2.6	2,625.8	21	2,628.4
Birch	167.0	8,199.1	21	8,366.1
Sweet chestnut	0.0	0.0	-	0.0
Hazel	1.6	5,651.6	19	5,653.2
Hawthorn	0.0	1,138.5	28	1,138.5
Alder	88.7	2,489.7	28	2,578.4
Willow	0.0	2,089.8	57	2,089.8
Other broadleaf	1,630.2	4,046.7	15	5,676.9
Yorkshire and Humber				
All broadleaves	1,777.1	81,588.6	5	83,365.7
Oak	279.5	8,428.3	18	8,707.8
Beech	194.1	2,818.5	19	3,012.5
Sycamore	107.1	13,179.9	12	13,287.0
Ash	50.1	8,529.3	12	8,579.4
Birch	408.0	11,838.8	13	12,246.8
Sweet chestnut	3.0	83.8	47	86.8
Hazel	0.0	4,271.2	20	4,271.2
Hawthorn	0.0	7,561.1	14	7,561.1
Alder	5.1	4,002.4	20	4,007.5
Willow	0.0	3,992.4	21	3,992.4
Other broadleaf	730.2	16,544.0	9	17,274.2
East Midlands				
All broadleaves	6,747.1	63,636.8	8	70,383.9
Oak	3,532.9	6,025.4	12	9,558.3
Beech	319.5	688.2	37	1,007.7
Sycamore	71.7	7,775.7	16	7,847.5
Ash	746.9	7,819.2	14	8,566.1
Birch	652.3	4,354.8	20	5,007.1
Sweet chestnut	25.1	708.4	42	733.4
Hazel	12.6	6,629.8	21	6,642.4
Hawthorn	0.0	15,240.3	22	15,240.3
Alder	17.0	1,794.7	71	1,811.7
Willow	0.0	1,499.4	44	1,499.4
Other broadleaf	1,369.1	11,096.6	13	12,465.7

Principal species	FC	Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)
East England				
All broadleaves	2,856.1	100,979.3	6	103,835.4
Oak	717.0	8,941.6	14	9,658.6
Beech	395.2	2,479.8	22	2,875.0
Sycamore	94.4	11,552.4	15	11,646.9
Ash	197.5	12,028.0	19	12,225.4
Birch	408.4	9,216.8	22	9,625.2
Sweet chestnut	74.2	4,453.1	31	4,527.3
Hazel	89.6	12,199.9	24	12,289.5
Hawthorn	0.0	5,912.2	20	5,912.2
Alder	26.3	2,885.8	33	2,912.1
Willow	2.2	5,419.2	34	5,421.4
Other broadleaf	851.3	25,890.5	12	26,741.8
South East and London				
All broadleaves	14,395.8	292,374.1	4	306,770.0
Oak	5,344.1	18,902.7	7	24,246.8
Beech	4,037.1	17,349.9	9	21,386.9
Sycamore	105.7	8,493.4	16	8,599.2
Ash	364.0	23,947.0	11	24,311.0
Birch	1,560.6	47,256.0	10	48,816.6
Sweet chestnut	253.5	27,928.9	20	28,182.4
Hazel	28.0	70,844.6	8	70,872.6
Hawthorn	0.0	19,681.4	13	19,681.4
Alder	192.8	4,731.9	25	4,924.8
Willow	0.0	6,612.3	18	6,612.3
Other broadleaf	2,510.0	45,641.2	8	48,151.2
South West England				
All broadleaves	7,955.3	219,284.7	4	227,240.0
Oak	2,904.3	16,147.5	9	19,051.8
Beech	1,606.2	11,874.7	12	13,480.9
Sycamore	61.5	20,986.5	14	21,048.0
Ash	396.5	29,056.0	8	29,452.5
Birch	443.4	13,784.9	12	14,228.3
Sweet chestnut	462.2	5,021.9	35	5,484.1
Hazel	60.7	58,697.7	8	58,758.4
Hawthorn	0.0	19,110.7	17	19,110.7
Alder	135.0	5,267.9	18	5,402.9
Willow	0.0	13,073.4	15	13,073.4
Other broadleaf	1,885.5	27,125.9	10	29,011.5
West Midlands				
All broadleaves	3,802.4	84,613.2	8	88,415.6
Oak	1,780.6	8,303.4	13	10,084.0
Beech	483.2	2,070.8	32	2,554.0
Sycamore	34.0	5,914.8	24	5,948.8
Ash	128.2	7,935.7	16	8,063.9
Birch	402.4	7,616.4	23	8,018.8
Sweet chestnut	108.5	4,768.7	55	4,877.2
Hazel	58.3	18,129.7	21	18,188.0
Hawthorn	0.0	8,353.8	18	8,353.8
Alder	24.7	3,379.7	26	3,404.4
Willow	0.0	3,385.7	33	3,385.7
Other broadleaf	782.4	14,716.8	18	15,499.2

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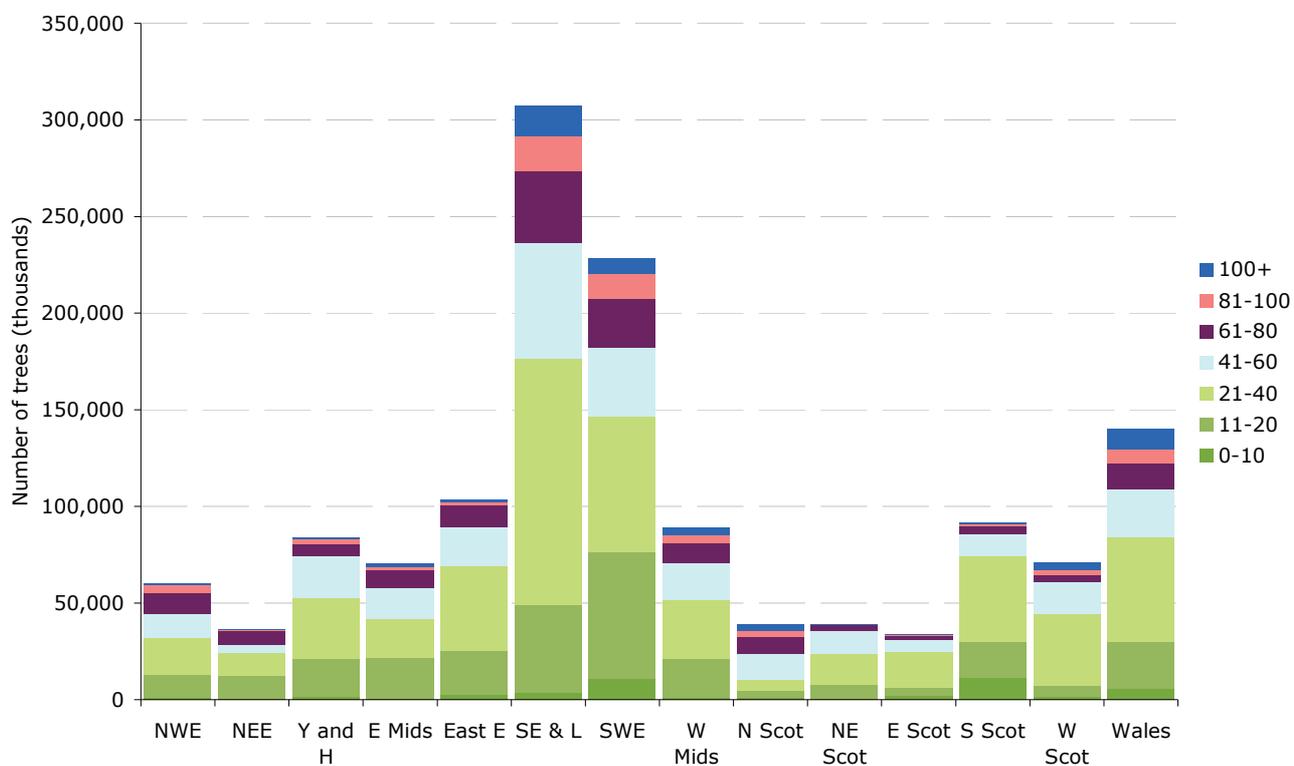
Table A.7 (continued)

Principal species	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
North Scotland					
All broadleaves	7,043.7	32,026.5	13	39,070.2	
Oak	220.2	663.7	88	883.9	
Beech	45.2	131.4	53	176.6	
Sycamore	19.6	297.0	68	316.6	
Ash	7.8	612.0	47	619.8	
Birch	5,021.6	20,124.4	15	25,146.0	
Sweet chestnut	0.0	0.0	-	0.0	
Hazel	39.7	2,683.2	78	2,722.9	
Hawthorn	0.0	0.0	-	0.0	
Alder	138.0	3,951.2	43	4,089.2	
Willow	0.0	932.9	42	932.9	
Other broadleaf	1,551.6	2,596.9	28	4,148.5	
North East Scotland					
All broadleaves	3,427.7	35,747.8	9	39,175.5	
Oak	92.6	830.8	45	923.4	
Beech	157.2	1,121.6	46	1,278.8	
Sycamore	36.3	2,074.0	36	2,110.4	
Ash	18.0	197.9	42	215.9	
Birch	1,109.5	24,643.6	12	25,753.1	
Sweet chestnut	0.0	0.0	-	0.0	
Hazel	0.4	1,218.2	82	1,218.6	
Hawthorn	0.0	127.3	63	127.3	
Alder	65.2	578.3	43	643.6	
Willow	6.0	379.0	44	385.0	
Other broadleaf	1,942.4	4,416.3	19	6,358.7	
East Scotland					
All broadleaves	2,139.1	31,690.9	7	33,830.0	
Oak	183.2	979.2	21	1,162.4	
Beech	190.2	1,497.1	21	1,687.4	
Sycamore	66.7	3,324.5	22	3,391.2	
Ash	12.9	1,315.8	26	1,328.7	
Birch	809.9	15,162.2	11	15,972.0	
Sweet chestnut	0.0	0.0	-	0.0	
Hazel	0.0	1,736.9	33	1,736.9	
Hawthorn	0.0	1,379.1	51	1,379.1	
Alder	58.2	672.5	28	730.6	
Willow	0.0	2,727.6	22	2,727.6	
Other broadleaf	818.0	2,723.4	16	3,541.4	

Principal species	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
South Scotland					
All broadleaves	7,714.1	84,250.5	8	91,964.6	
Oak	891.5	4,664.1	26	5,555.6	
Beech	269.4	4,389.4	16	4,658.8	
Sycamore	225.8	8,256.0	12	8,481.8	
Ash	100.2	6,966.6	15	7,066.9	
Birch	1,069.0	27,420.9	12	28,489.9	
Sweet chestnut	0.0	0.0	-	0.0	
Hazel	9.3	4,246.8	27	4,256.1	
Hawthorn	0.0	8,075.5	21	8,075.5	
Alder	174.1	6,838.2	30	7,012.4	
Willow	0.0	5,155.5	23	5,155.5	
Other broadleaf	4,974.7	8,301.1	11	13,275.8	
West Scotland					
All broadleaves	18,173.1	53,016.4	9	71,189.5	
Oak	1,628.8	3,288.4	25	4,917.2	
Beech	298.2	1,536.8	36	1,835.0	
Sycamore	95.9	696.1	46	791.9	
Ash	220.9	1,263.2	42	1,484.1	
Birch	7,832.9	26,114.9	13	33,947.7	
Sweet chestnut	0.0	0.0	-	0.0	
Hazel	273.2	8,876.2	30	9,149.4	
Hawthorn	0.0	692.8	59	692.8	
Alder	529.7	4,822.6	28	5,352.3	
Willow	0.0	1,278.2	37	1,278.2	
Other broadleaf	7,293.6	3,879.6	28	11,173.2	
Wales					
All broadleaves	13,880.4	126,080.5	6	139,961.0	
Oak	2,128.7	12,790.2	15	14,918.9	
Beech	1,820.8	3,313.9	22	5,134.6	
Sycamore	71.0	9,747.8	18	9,818.8	
Ash	459.6	16,039.2	14	16,498.8	
Birch	1,355.6	12,072.6	17	13,428.2	
Sweet chestnut	59.8	182.3	58	242.0	
Hazel	30.8	28,510.2	15	28,541.0	
Hawthorn	0.0	9,436.7	20	9,436.7	
Alder	213.4	8,477.6	19	8,691.0	
Willow	0.0	13,018.7	20	13,018.7	
Other broadleaf	7,740.9	12,157.0	11	19,897.9	

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Figure A.8 Numbers of trees by age class of all broadleaved species for NFI regions



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Table A.8 Numbers of trees by age class of all broadleaved species for NFI regions

Age class (years)	FC	Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)
North West England				
0-10	50.8	839.7	50	890.5
11-20	371.9	11,665.0	19	12,036.9
21-40	710.0	18,179.5	13	18,889.5
41-60	1,048.7	11,841.8	18	12,890.5
61-80	811.9	9,438.8	23	10,250.7
81-100	200.7	4,308.8	22	4,509.5
100+	403.6	662.4	39	1,066.0
Total	3,597.6	56,935.9	7	60,533.6
North East England				
0-10	4.4	650.9	55	655.3
11-20	753.2	11,284.2	21	12,037.3
21-40	822.3	10,801.8	20	11,624.1
41-60	197.2	4,112.0	25	4,309.2
61-80	163.4	6,610.3	16	6,773.7
81-100	52.4	992.9	36	1,045.2
100+	36.3	36.1	60	72.3
Total	2,029.1	34,488.1	11	36,517.2
Yorkshire and Humber				
0-10	0.0	1,845.4	34	1,845.4
11-20	377.4	18,837.5	12	19,214.9
21-40	736.1	30,847.4	10	31,583.5
41-60	389.1	21,055.7	11	21,444.8
61-80	221.5	6,383.6	14	6,605.0
81-100	30.6	2,283.8	15	2,314.5
100+	22.5	596.1	39	618.6
Total	1,777.1	81,588.6	5	83,365.7
East Midlands				
0-10	11.6	313.7	75	325.3
11-20	856.1	20,622.8	16	21,478.9
21-40	1,653.6	18,038.5	18	19,692.1
41-60	1,666.6	14,813.6	17	16,480.1
61-80	1,836.4	7,158.7	24	8,995.1
81-100	503.3	1,244.9	28	1,748.2
100+	219.4	1,444.7	42	1,664.0
Total	6,747.1	63,636.8	8	70,383.9

Age class (years)	FC	Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)
East England				
0-10	5.2	2,356.2	33	2,361.4
11-20	263.4	22,663.7	14	22,927.1
21-40	1,090.8	43,094.5	12	44,185.3
41-60	698.4	18,976.9	16	19,675.3
61-80	588.5	10,945.6	17	11,534.1
81-100	162.2	1,505.3	36	1,667.5
100+	47.6	1,437.1	35	1,484.7
Total	2,856.1	100,979.3	6	103,835.4
South East England and London				
0-10	12.0	3,764.9	37	3,776.8
11-20	1,663.3	43,667.2	10	45,330.6
21-40	1,944.9	125,192.2	7	127,137.1
41-60	3,129.9	57,323.6	8	60,453.4
61-80	1,996.5	35,160.1	12	37,156.6
81-100	723.1	16,845.3	15	17,568.4
100+	4,926.1	10,772.1	9	15,698.3
Total	14,395.8	292,374.1	4	306,770.0
South West England				
0-10	23.3	10,635.5	18	10,658.8
11-20	892.2	65,066.0	8	65,958.2
21-40	1,975.3	67,919.8	8	69,895.1
41-60	1,804.6	33,986.4	9	35,791.0
61-80	1,072.7	24,270.6	15	25,343.3
81-100	274.8	12,703.8	16	12,978.6
100+	1,912.6	5,777.0	16	7,689.7
Total	7,955.3	219,284.7	4	227,240.0
West Midlands				
0-10	54.7	813.6	41	868.3
11-20	901.6	19,298.1	18	20,199.7
21-40	1,820.9	28,587.1	15	30,408.0
41-60	637.0	18,440.7	20	19,077.8
61-80	205.8	10,539.0	21	10,744.8
81-100	68.2	3,474.5	28	3,542.6
100+	114.3	3,833.0	37	3,947.3
Total	3,802.4	84,613.2	8	88,415.6

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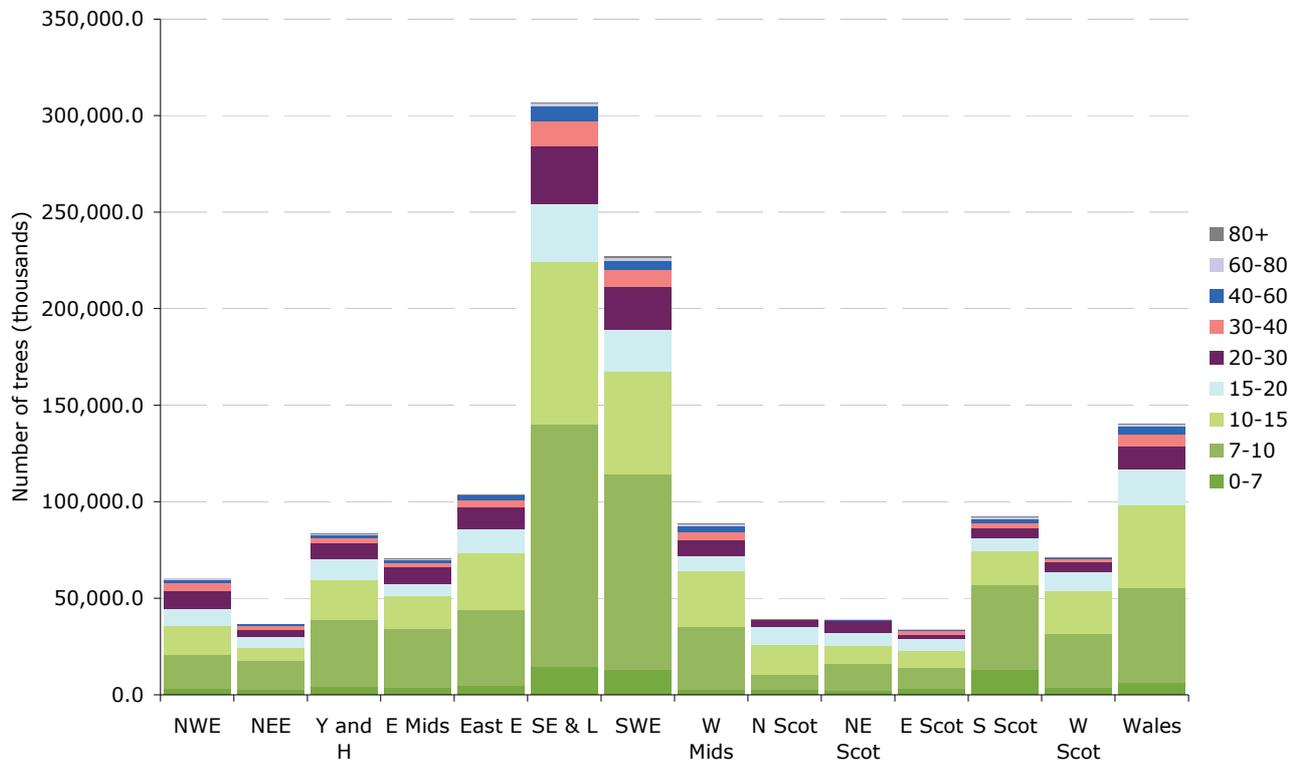
Table A.8 (continued)

Age class (years)	FC	Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)
North Scotland				
0-10	4.8	1,159.3	70	1,164.0
11-20	710.0	2,956.4	33	3,666.3
21-40	1,277.3	4,122.5	35	5,399.7
41-60	1,530.7	12,241.3	29	13,772.0
61-80	2,790.8	5,682.6	37	8,473.4
81-100	400.4	2,592.2	63	2,992.6
100+	329.8	2,873.3	73	3,203.1
Total	7,043.7	32,026.5	13	39,070.2
North East Scotland				
0-10	66.6	559.2	56	625.7
11-20	1,555.7	5,538.6	30	7,094.3
21-40	1,049.5	15,049.6	15	16,099.1
41-60	451.5	11,089.2	20	11,540.6
61-80	175.2	3,012.0	43	3,187.2
81-100	69.9	147.8	80	217.7
100+	59.4	364.4	51	423.7
Total	3,427.7	35,747.8	9	39,175.5
East Scotland				
0-10	5.7	2,318.4	35	2,324.1
11-20	304.0	3,413.0	19	3,717.1
21-40	793.7	17,901.2	11	18,694.9
41-60	403.8	5,638.2	21	6,042.0
61-80	451.3	1,881.9	20	2,333.1
81-100	87.9	234.3	39	322.2
100+	92.7	304.1	43	396.7
Total	2,139.1	31,690.9	7	33,830.0

Age class (years)	FC	Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)
South Scotland				
0-10	43.0	11,219.9	32	11,262.9
11-20	2,355.4	16,436.6	15	18,792.0
21-40	3,409.0	40,646.3	10	44,055.3
41-60	757.6	11,179.1	12	11,936.7
61-80	520.1	3,102.7	25	3,622.8
81-100	134.3	1,220.3	47	1,354.6
100+	494.9	445.5	35	940.4
Total	7,714.1	84,250.5	8	91,964.6
West Scotland				
0-10	1.7	1,543.6	92	1,545.3
11-20	1,625.5	4,078.7	36	5,704.2
21-40	4,477.4	32,748.3	15	37,225.7
41-60	3,708.2	12,370.3	18	16,078.5
61-80	2,406.0	1,657.7	50	4,063.7
81-100	2,097.8	439.3	51	2,537.1
100+	3,856.5	211.5	55	4,068.0
Total	18,173.1	53,016.4	9	71,189.5
Wales				
0-10	167.6	5,759.0	30	5,926.6
11-20	2,747.3	21,069.7	16	23,817.0
21-40	3,791.7	50,650.6	11	54,442.3
41-60	3,302.1	21,381.3	14	24,683.3
61-80	1,891.2	11,847.1	24	13,738.3
81-100	764.2	6,109.5	34	6,873.6
100+	1,216.3	9,424.0	22	10,640.3
Total	13,880.4	126,080.5	6	139,961.0

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Figure A.9 Numbers of trees by mean stand dbh class of all broadleaved species for NFI regions



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Table A.9 Numbers of trees by mean stand dbh class of all broadleaved species for NFI regions

Mean stand DBH (cm)	Private sector		Total	
	FC number of trees (thousands)	Private sector number of trees (thousands)	SE%	number of trees (thousands)
North West England				
0-7	26.9	3,091.5	21	3,118.4
7-10	1,103.7	16,711.0	12	17,814.7
10-15	1,581.3	13,032.2	16	14,613.5
15-20	594.4	8,697.8	17	9,292.2
20-30	278.0	8,526.3	17	8,804.3
30-40	8.3	4,519.1	23	4,527.5
40-60	5.1	1,466.2	17	1,471.3
60-80	0.0	799.4	36	799.4
80+	0.0	92.3	34	92.3
Total	3,597.6	56,935.9	7	60,533.6
North East England				
0-7	13.5	2,773.3	31	2,786.8
7-10	1,333.5	13,493.4	16	14,826.8
10-15	442.4	6,544.4	17	6,986.8
15-20	152.1	5,208.4	23	5,360.5
20-30	66.2	3,796.7	17	3,862.9
30-40	17.3	1,704.5	19	1,721.8
40-60	3.2	916.2	23	919.4
60-80	0.9	48.5	39	49.4
80+	0.1	2.8	85	2.9
Total	2,029.1	34,488.1	11	36,517.2
Yorkshire and Humber				
0-7	27.1	4,236.6	17	4,263.7
7-10	886.6	33,895.9	9	34,782.4
10-15	302.7	20,044.1	10	20,346.8
15-20	196.7	10,798.7	13	10,995.4
20-30	235.5	8,249.6	15	8,485.1
30-40	95.2	2,207.8	13	2,303.0
40-60	24.4	1,695.5	13	1,720.0
60-80	7.7	357.2	30	364.9
80+	1.2	103.2	30	104.4
Total	1,777.1	81,588.6	5	83,365.7
East Midlands				
0-7	51.8	3,719.7	40	3,771.4
7-10	2,199.7	27,823.4	14	30,023.1
10-15	1,712.6	15,891.1	15	17,603.6
15-20	1,872.0	4,170.5	22	6,042.5
20-30	675.4	8,112.3	12	8,787.7
30-40	187.9	1,964.8	20	2,152.8
40-60	39.8	1,566.3	19	1,606.1
60-80	5.6	110.7	41	116.4
80+	2.3	278.0	35	280.2
Total	6,747.1	63,636.8	8	70,383.9

Mean stand DBH (cm)	Private sector		Total	
	FC number of trees (thousands)	Private sector number of trees (thousands)	SE%	number of trees (thousands)
East England				
0-7	76.2	4,432.3	19	4,508.5
7-10	934.2	38,263.2	12	39,197.4
10-15	619.8	29,154.9	13	29,774.8
15-20	544.8	11,611.1	17	12,155.8
20-30	450.6	10,977.1	17	11,427.6
30-40	192.1	3,448.4	18	3,640.6
40-60	31.3	2,320.7	17	2,351.9
60-80	6.4	445.9	25	452.3
80+	0.7	325.7	30	326.4
Total	2,856.1	100,979.3	6	103,835.4
South East England and London				
0-7	434.7	13,897.0	28	14,331.7
7-10	3,037.8	122,632.6	7	125,670.4
10-15	2,644.3	81,919.8	7	84,564.2
15-20	2,041.7	27,645.0	9	29,686.7
20-30	4,567.9	25,378.6	7	29,946.5
30-40	1,453.1	11,490.5	9	12,943.6
40-60	196.5	7,810.0	8	8,006.5
60-80	16.4	1,290.7	15	1,307.1
80+	3.4	309.8	20	313.2
Total	14,395.8	292,374.1	4	306,770.0
South West England				
0-7	410.7	12,838.2	12	13,248.9
7-10	3,355.8	97,398.1	6	100,753.9
10-15	1,586.2	52,014.4	9	53,600.6
15-20	697.5	21,085.7	11	21,783.3
20-30	1,156.1	20,656.5	9	21,812.6
30-40	549.5	8,185.7	10	8,735.3
40-60	174.8	4,751.9	10	4,926.6
60-80	21.3	1,702.8	16	1,724.2
80+	3.3	651.3	21	654.6
Total	7,955.3	219,284.7	4	227,240.0
West Midlands				
0-7	419.1	2,146.2	23	2,565.3
7-10	2,063.5	30,222.6	13	32,286.0
10-15	602.3	28,690.3	16	29,292.6
15-20	328.7	7,288.7	17	7,617.4
20-30	236.2	8,006.8	17	8,242.9
30-40	124.4	4,205.2	26	4,329.6
40-60	25.1	3,293.7	16	3,318.8
60-80	2.6	589.7	28	592.3
80+	0.6	170.0	49	170.6
Total	3,802.4	84,613.2	8	88,415.6

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Table A.9 (continued)

Mean stand DBH (cm)	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
North Scotland					
0-7	7.0	2,540.6	44	2,547.6	
7-10	1,639.9	6,235.7	37	7,875.6	
10-15	3,843.3	11,648.5	30	15,491.8	
15-20	1,463.1	7,642.9	24	9,106.0	
20-30	89.4	3,588.8	22	3,678.1	
30-40	0.4	112.2	55	112.6	
40-60	0.5	178.1	52	178.6	
60-80	0.1	0.6	93	0.7	
80+	0.1	79.2	69	79.3	
Total	7,043.7	32,026.5	13	39,070.2	
North East Scotland					
0-7	100.4	2,192.4	33	2,292.8	
7-10	2,309.6	11,539.5	19	13,849.1	
10-15	421.1	8,666.9	22	9,088.1	
15-20	401.2	6,436.6	25	6,837.8	
20-30	149.3	5,720.1	18	5,869.4	
30-40	33.7	481.0	47	514.8	
40-60	11.4	572.6	41	584.0	
60-80	0.9	135.0	50	135.9	
80+	0.0	3.7	108	3.7	
Total	3,427.7	35,747.8	9	39,175.5	
East Scotland					
0-7	99.7	2,817.8	29	2,917.5	
7-10	733.9	10,118.8	14	10,852.7	
10-15	748.3	8,363.3	16	9,111.6	
15-20	475.9	5,513.8	17	5,989.8	
20-30	62.7	2,473.6	19	2,536.3	
30-40	10.0	1,466.8	19	1,476.8	
40-60	7.6	761.5	27	769.2	
60-80	0.8	138.0	59	138.8	
80+	0.2	37.2	63	37.5	
Total	2,139.1	31,690.9	7	33,830.0	

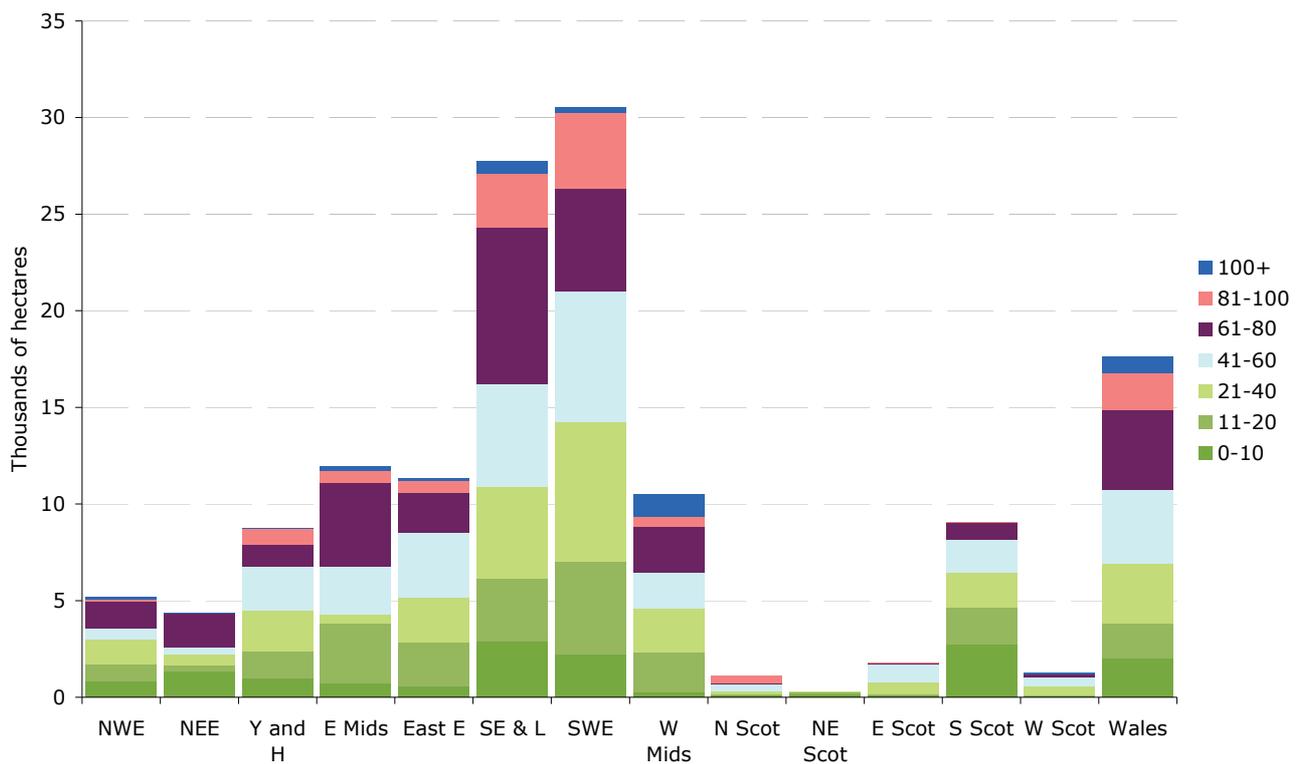
Mean stand DBH (cm)	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
South Scotland					
0-7	107.2	12,873.4	28	12,980.6	
7-10	4,903.7	38,915.5	11	43,819.2	
10-15	1,809.5	15,686.4	14	17,495.9	
15-20	588.9	6,585.1	18	7,174.0	
20-30	286.2	4,776.2	15	5,062.5	
30-40	16.9	2,311.7	23	2,328.5	
40-60	1.0	2,168.8	20	2,169.8	
60-80	0.2	848.6	27	848.9	
80+	0.5	84.8	50	85.3	
Total	7,714.1	84,250.5	8	91,964.6	
West Scotland					
0-7	12.0	3,933.0	41	3,945.1	
7-10	4,026.1	23,536.3	18	27,562.5	
10-15	7,363.6	15,046.2	18	22,409.8	
15-20	5,583.3	4,208.1	30	9,791.4	
20-30	1,137.8	4,173.3	27	5,311.2	
30-40	40.9	1,173.3	34	1,214.1	
40-60	8.9	705.1	34	714.0	
60-80	0.4	186.3	80	186.7	
80+	0.0	54.7	66	54.7	
Total	18,173.1	53,016.4	9	71,189.5	
Wales					
0-7	406.4	5,926.0	27	6,332.4	
7-10	4,986.3	43,972.3	11	48,958.6	
10-15	4,265.4	38,419.0	10	42,684.4	
15-20	3,152.0	15,842.1	17	18,994.0	
20-30	890.3	10,640.4	14	11,530.6	
30-40	135.5	6,358.3	15	6,493.7	
40-60	37.9	4,170.1	16	4,208.0	
60-80	5.6	700.5	25	706.1	
80+	1.1	52.1	62	53.2	
Total	13,880.4	126,080.5	6	139,961.0	

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Ash

Stocked area as at 31 March 2011

Figure A.10 Stocked area by age class of ash for NFI regions



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Table A.10 Stocked area by age class of ash for NFI regions

Age class (years)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
North West England				
0-10	0.0	0.8	29	0.8
11-20	0.0	0.8	30	0.8
21-40	0.0	1.3	36	1.3
41-60	0.0	0.6	40	0.6
61-80	0.1	1.3	29	1.4
81-100	0.0	0.1	46	0.1
100+	0.0	0.1	85	0.1
Total	0.2	5.1	15	5.2
North East England				
0-10	0.0	1.3	50	1.3
11-20	0.0	0.3	49	0.3
21-40	0.0	0.5	42	0.5
41-60	0.0	0.4	47	0.4
61-80	0.0	1.8	37	1.8
81-100	0.0	0.0	-	0.0
100+	0.0	0.0	86	0.0
Total	0.0	4.4	21	4.4
Yorkshire and Humber				
0-10	0.0	1.0	22	1.0
11-20	0.0	1.4	21	1.4
21-40	0.0	2.1	23	2.1
41-60	0.0	2.2	21	2.3
61-80	0.0	1.0	26	1.1
81-100	0.0	0.8	39	0.9
100+	0.0	0.0	-	0.0
Total	0.2	8.6	10	8.8
East Midlands				
0-10	0.0	0.7	45	0.7
11-20	0.1	3.0	19	3.1
21-40	0.0	0.5	34	0.5
41-60	0.2	2.3	27	2.4
61-80	0.4	3.9	26	4.4
81-100	0.1	0.5	55	0.6
100+	0.0	0.2	93	0.2
Total	0.9	11.0	12	12.0

Age class (years)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
East England				
0-10	0.0	0.6	38	0.6
11-20	0.0	2.3	29	2.3
21-40	0.0	2.3	28	2.3
41-60	0.1	3.3	27	3.4
61-80	0.1	2.0	32	2.0
81-100	0.0	0.6	63	0.7
100+	0.0	0.1	90	0.1
Total	0.2	11.1	13	11.3
South East England and London				
0-10	0.0	2.9	22	2.9
11-20	0.0	3.2	17	3.2
21-40	0.0	4.7	15	4.8
41-60	0.1	5.2	18	5.3
61-80	0.1	8.0	16	8.1
81-100	0.1	2.7	25	2.8
100+	0.0	0.6	38	0.6
Total	0.4	27.3	7	27.7
South West England				
0-10	0.0	2.2	22	2.2
11-20	0.0	4.8	17	4.8
21-40	0.0	7.2	15	7.2
41-60	0.2	6.5	13	6.7
61-80	0.2	5.2	17	5.4
81-100	0.1	3.9	22	3.9
100+	0.0	0.3	48	0.3
Total	0.6	30.0	7	30.5
West Midlands				
0-10	0.0	0.3	38	0.3
11-20	0.0	2.1	24	2.1
21-40	0.0	2.2	28	2.2
41-60	0.1	1.8	42	1.9
61-80	0.0	2.4	29	2.4
81-100	0.0	0.5	55	0.5
100+	0.0	1.2	45	1.2
Total	0.2	10.3	14	10.5

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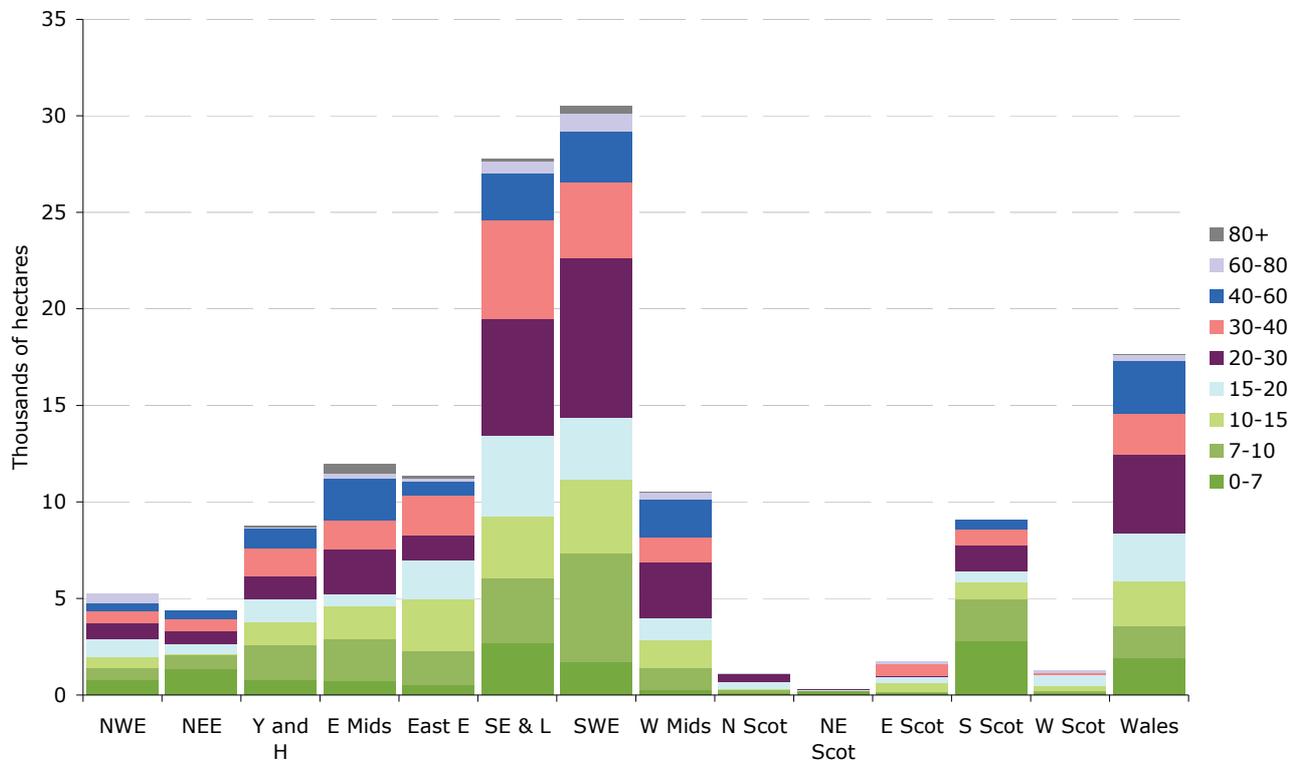
Table A.10 (continued)

Age class (years)	FC	Private sector	Total	
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
North Scotland				
0-10	0.0	0.1	81	0.1
11-20	0.0	0.0	98	0.0
21-40	0.0	0.1	95	0.1
41-60	0.0	0.4	70	0.4
61-80	0.0	0.0	-	0.0
81-100	0.0	0.4	92	0.4
100+	0.0	0.0	-	0.0
Total	0.0	1.1	45	1.1
North East Scotland				
0-10	0.0	0.2	61	0.2
11-20	0.0	0.1	60	0.1
21-40	0.0	0.0	90	0.0
41-60	0.0	0.0	108	0.0
61-80	0.0	0.0	-	0.0
81-100	0.0	0.0	-	0.0
100+	0.0	0.0	-	0.0
Total	0.0	0.2	42	0.3
East Scotland				
0-10	0.0	0.1	64	0.1
11-20	0.0	0.0	38	0.0
21-40	0.0	0.6	32	0.6
41-60	0.0	0.9	40	0.9
61-80	0.0	0.0	93	0.0
81-100	0.0	0.0	57	0.0
100+	0.0	0.0	-	0.0
Total	0.1	1.7	25	1.8

Age class (years)	FC	Private sector	Total	
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
South Scotland				
0-10	0.0	2.7	36	2.8
11-20	0.0	1.8	20	1.9
21-40	0.0	1.8	24	1.8
41-60	0.0	1.7	34	1.7
61-80	0.0	0.9	50	0.9
81-100	0.0	0.0	71	0.0
100+	0.0	0.0	-	0.0
Total	0.1	9.0	15	9.1
West Scotland				
0-10	0.1	0.0	-	0.1
11-20	0.0	0.0	102	0.0
21-40	0.0	0.5	43	0.5
41-60	0.0	0.4	94	0.5
61-80	0.0	0.2	88	0.2
81-100	0.0	0.0	-	0.0
100+	0.1	0.0	-	0.1
Total	0.2	1.1	43	1.3
Wales				
0-10	0.1	1.9	35	2.0
11-20	0.0	1.8	23	1.8
21-40	0.0	3.1	23	3.1
41-60	0.1	3.7	27	3.8
61-80	0.1	4.1	29	4.1
81-100	0.1	1.9	33	1.9
100+	0.0	0.8	50	0.8
Total	0.4	17.2	11	17.6

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Figure A.11 Stocked area by mean stand dbh class of ash for NFI regions



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Table A.11 Stocked area by mean stand dbh class of ash for NFI regions

Mean stand DBH (cm)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
North West England				
0-7	0.0	0.7	31	0.8
7-10	0.0	0.6	25	0.6
10-15	0.1	0.4	49	0.5
15-20	0.0	0.9	45	0.9
20-30	0.0	0.9	31	0.9
30-40	0.0	0.6	45	0.6
40-60	0.0	0.4	51	0.4
60-80	0.0	0.5	50	0.5
80+	0.0	0.0	-	0.0
Total	0.2	5.1	15	5.2
North East England				
0-7	0.0	1.3	50	1.3
7-10	0.0	0.7	42	0.7
10-15	0.0	0.1	46	0.1
15-20	0.0	0.5	48	0.5
20-30	0.0	0.6	37	0.6
30-40	0.0	0.7	55	0.7
40-60	0.0	0.4	58	0.4
60-80	0.0	0.0	-	0.0
80+	0.0	0.0	-	0.0
Total	0.0	4.4	21	4.4
Yorkshire and Humber				
0-7	0.0	0.8	24	0.8
7-10	0.0	1.7	21	1.8
10-15	0.0	1.2	26	1.2
15-20	0.0	1.2	27	1.2
20-30	0.0	1.2	25	1.2
30-40	0.0	1.4	28	1.4
40-60	0.0	1.0	33	1.0
60-80	0.0	0.0	-	0.0
80+	0.0	0.1	100	0.1
Total	0.2	8.6	10	8.8
East Midlands				
0-7	0.1	0.6	47	0.7
7-10	0.1	2.1	22	2.2
10-15	0.1	1.6	30	1.7
15-20	0.2	0.4	47	0.6
20-30	0.2	2.2	28	2.3
30-40	0.1	1.3	41	1.5
40-60	0.1	2.1	38	2.2
60-80	0.1	0.2	93	0.3
80+	0.0	0.4	93	0.5
Total	0.9	11.0	12	12.0

Mean stand DBH (cm)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
East England				
0-7	0.0	0.5	40	0.5
7-10	0.0	1.7	30	1.7
10-15	0.0	2.7	30	2.7
15-20	0.0	2.0	36	2.0
20-30	0.1	1.3	41	1.3
30-40	0.0	2.0	33	2.0
40-60	0.0	0.7	56	0.8
60-80	0.0	0.1	90	0.1
80+	0.0	0.1	90	0.1
Total	0.2	11.1	13	11.3
South East England and London				
0-7	0.0	2.6	23	2.7
7-10	0.1	3.3	16	3.4
10-15	0.0	3.2	21	3.2
15-20	0.1	4.1	23	4.2
20-30	0.0	6.0	15	6.1
30-40	0.1	5.0	19	5.1
40-60	0.1	2.4	24	2.4
60-80	0.0	0.6	41	0.6
80+	0.0	0.1	59	0.1
Total	0.4	27.3	7	27.7
South West England				
0-7	0.0	1.7	27	1.7
7-10	0.1	5.6	15	5.6
10-15	0.1	3.8	16	3.9
15-20	0.0	3.2	22	3.2
20-30	0.1	8.1	15	8.2
30-40	0.1	3.8	19	3.9
40-60	0.1	2.6	22	2.6
60-80	0.0	0.9	33	0.9
80+	0.0	0.4	56	0.4
Total	0.6	30.0	7	30.5
West Midlands				
0-7	0.0	0.3	38	0.3
7-10	0.0	1.1	26	1.2
10-15	0.0	1.4	34	1.4
15-20	0.0	1.1	47	1.1
20-30	0.0	2.9	35	2.9
30-40	0.0	1.3	37	1.3
40-60	0.0	2.0	32	2.0
60-80	0.0	0.3	71	0.3
80+	0.0	0.0	76	0.0
Total	0.2	10.3	14	10.5

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Table A.11 (continued)

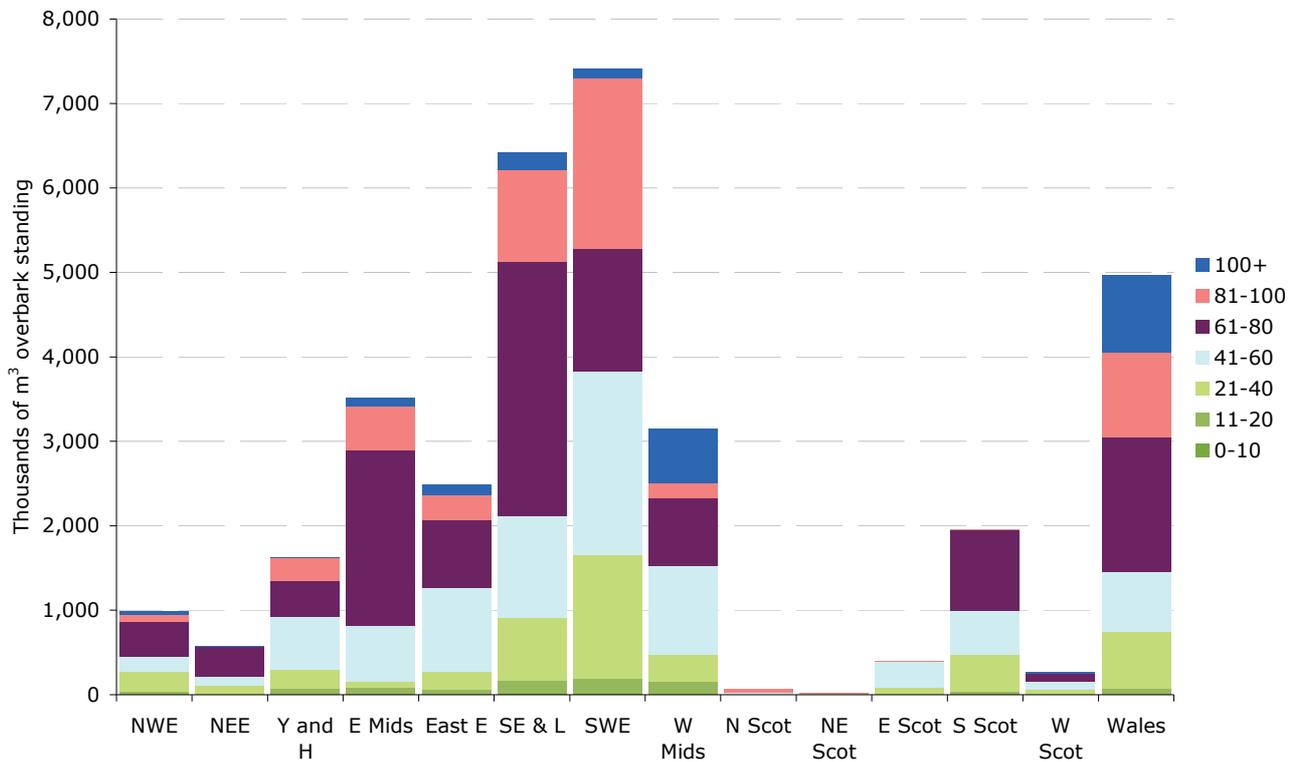
Mean stand DBH (cm)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
North Scotland				
0-7	0.0	0.1	81	0.1
7-10	0.0	0.1	98	0.1
10-15	0.0	0.1	67	0.1
15-20	0.0	0.4	71	0.4
20-30	0.0	0.4	92	0.4
30-40	0.0	0.0	-	0.0
40-60	0.0	0.0	-	0.0
60-80	0.0	0.0	93	0.0
80+	0.0	0.0	-	0.0
Total	0.0	1.1	45	1.1
North East Scotland				
0-7	0.0	0.2	52	0.2
7-10	0.0	0.0	64	0.0
10-15	0.0	0.0	-	0.0
15-20	0.0	0.0	-	0.0
20-30	0.0	0.0	95	0.0
30-40	0.0	0.0	-	0.0
40-60	0.0	0.0	-	0.0
60-80	0.0	0.0	-	0.0
80+	0.0	0.0	-	0.0
Total	0.0	0.2	42	0.3
East Scotland				
0-7	0.0	0.1	64	0.1
7-10	0.0	0.1	66	0.1
10-15	0.0	0.4	40	0.4
15-20	0.0	0.3	36	0.3
20-30	0.0	0.0	96	0.0
30-40	0.0	0.6	55	0.6
40-60	0.0	0.0	93	0.0
60-80	0.0	0.1	88	0.1
80+	0.0	0.0	-	0.0
Total	0.1	1.7	25	1.8

Mean stand DBH (cm)	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
South Scotland				
0-7	0.0	2.8	36	2.8
7-10	0.0	2.1	21	2.2
10-15	0.0	0.8	24	0.8
15-20	0.0	0.6	36	0.6
20-30	0.0	1.4	41	1.4
30-40	0.0	0.8	44	0.8
40-60	0.0	0.5	74	0.5
60-80	0.0	0.0	-	0.0
80+	0.0	0.0	-	0.0
Total	0.1	9.0	15	9.1
West Scotland				
0-7	0.1	0.0	102	0.1
7-10	0.0	0.1	91	0.1
10-15	0.0	0.3	60	0.3
15-20	0.1	0.4	93	0.5
20-30	0.0	0.1	70	0.1
30-40	0.0	0.1	94	0.1
40-60	0.0	0.0	-	0.0
60-80	0.0	0.1	92	0.1
80+	0.0	0.0	-	0.0
Total	0.2	1.1	43	1.3
Wales				
0-7	0.1	1.8	37	1.9
7-10	0.0	1.6	23	1.7
10-15	0.1	2.2	20	2.3
15-20	0.1	2.4	31	2.4
20-30	0.1	4.1	28	4.1
30-40	0.0	2.1	32	2.1
40-60	0.0	2.7	30	2.7
60-80	0.0	0.3	50	0.3
80+	0.0	0.0	-	0.0
Total	0.4	17.2	11	17.6

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Standing volume as at 31 March 2011

Figure A.12 Standing volume by age class of ash for NFI regions



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Table A.12 Standing volume by age class of ash for NFI regions

Age class (years)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
North West England				
0-10	0	1	83	1
11-20	0	37	60	37
21-40	0	233	41	233
41-60	9	168	46	177
61-80	14	406	34	420
81-100	1	71	58	72
100+	1	43	85	44
Total	25	960	20	985
North East England				
0-10	0	0	72	0
11-20	0	2	43	2
21-40	0	106	41	106
41-60	0	104	46	104
61-80	0	361	35	361
81-100	0	0	-	0
100+	0	5	86	5
Total	0	577	23	578
Yorkshire and Humber				
0-10	0	1	35	1
11-20	0	67	33	67
21-40	2	219	25	221
41-60	6	631	24	637
61-80	7	419	29	425
81-100	10	261	33	271
100+	1	0	-	1
Total	25	1,597	13	1,622
East Midlands				
0-10	0	0	73	0
11-20	0	80	25	81
21-40	4	71	38	75
41-60	26	637	31	663
61-80	75	2,001	33	2,076
81-100	21	499	51	521
100+	4	91	93	95
Total	131	3,380	21	3,510

Age class (years)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
East England				
0-10	0	0	64	0
11-20	0	54	31	54
21-40	2	210	30	212
41-60	15	989	30	1,004
61-80	9	788	37	797
81-100	8	292	67	301
100+	0	120	90	120
Total	34	2,454	19	2,488
South East England and London				
0-10	0	7	78	7
11-20	1	153	28	154
21-40	1	748	16	750
41-60	17	1,187	17	1,204
61-80	20	2,998	16	3,018
81-100	9	1,068	20	1,077
100+	7	201	38	208
Total	56	6,362	9	6,418
South West England				
0-10	0	7	56	7
11-20	1	184	25	185
21-40	5	1,465	19	1,470
41-60	31	2,142	15	2,173
61-80	27	1,417	17	1,443
81-100	9	2,010	21	2,019
100+	4	107	48	111
Total	76	7,332	8	7,408
West Midlands				
0-10	0	0	82	0
11-20	0	153	43	153
21-40	4	317	24	321
41-60	9	1,038	55	1,047
61-80	4	806	25	810
81-100	3	173	54	176
100+	1	646	41	646
Total	20	3,133	22	3,154

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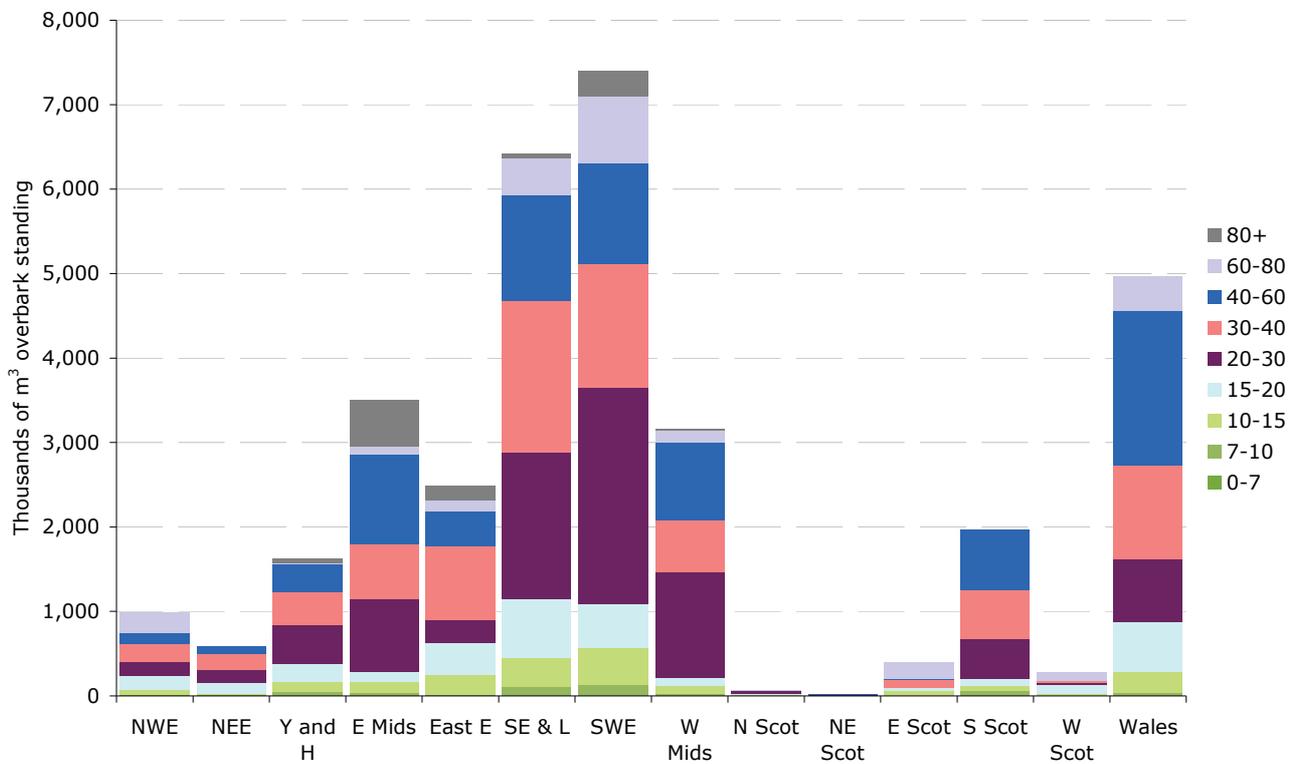
Table A.12 (continued)

Age class (years)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
North Scotland				
0-10	0	0	-	0
11-20	0	1	99	1
21-40	0	5	74	5
41-60	0	17	60	17
61-80	1	0	-	1
81-100	0	39	92	39
100+	0	0	-	0
Total	1	62	61	63
North East Scotland				
0-10	0	0	-	0
11-20	0	0	66	0
21-40	0	9	97	9
41-60	1	0	108	2
61-80	0	0	-	0
81-100	0	0	-	0
100+	0	0	-	0
Total	2	10	90	12
East Scotland				
0-10	0	0	82	0
11-20	0	1	62	1
21-40	0	80	39	80
41-60	0	301	59	301
61-80	1	9	93	10
81-100	1	1	57	1
100+	0	0	-	0
Total	2	392	46	394

Age class (years)	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
South Scotland				
0-10	0	1	82	1
11-20	0	32	34	32
21-40	1	443	48	444
41-60	2	516	40	517
61-80	3	957	58	960
81-100	0	6	64	6
100+	1	0	-	1
Total	7	1,954	31	1,961
West Scotland				
0-10	0	0	-	0
11-20	0	0	102	0
21-40	1	66	50	66
41-60	2	83	94	85
61-80	2	96	91	98
81-100	2	0	-	2
100+	20	0	-	20
Total	26	244	48	271
Wales				
0-10	0	4	59	4
11-20	0	66	27	67
21-40	2	667	43	669
41-60	22	696	29	718
61-80	16	1,572	29	1,588
81-100	13	987	38	999
100+	8	914	55	922
Total	61	4,906	17	4,967

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Figure A.13 Standing volume by mean stand dbh class of ash for NFI regions



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Table A.13 Standing volume by mean stand dbh class of ash for NFI regions

Mean stand DBH (cm)	FC		Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)
North West England					
0-7	0	0	-		0
7-10	0	10	35		10
10-15	19	38	58		57
15-20	6	164	48		170
20-30	0	163	36		164
30-40	0	210	43		210
40-60	0	137	47		137
60-80	0	237	49		237
80+	0	0	-		0
Total	25	960	20		985
North East England					
0-7	0	0	72		0
7-10	0	11	48		11
10-15	0	14	48		14
15-20	0	135	44		135
20-30	0	147	33		147
30-40	0	190	47		190
40-60	0	81	57		81
60-80	0	0	-		0
80+	0	0	-		0
Total	0	577	23		578
Yorkshire and Humber					
0-7	0	3	74		3
7-10	0	44	24		45
10-15	0	116	29		116
15-20	1	219	27		219
20-30	3	447	32		450
30-40	5	398	29		402
40-60	5	316	28		321
60-80	9	0	-		9
80+	1	56	100		57
Total	25	1,597	13		1,622
East Midlands					
0-7	0	0	-		0
7-10	1	31	26		32
10-15	12	122	38		134
15-20	46	73	53		118
20-30	32	834	32		866
30-40	12	639	43		651
40-60	12	1,045	36		1,058
60-80	8	91	93		99
80+	7	546	93		553
Total	131	3,380	21		3,510

Mean stand DBH (cm)	FC		Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)
East England					
0-7	0	0	-		0
7-10	0	19	29		20
10-15	6	219	32		225
15-20	7	379	41		385
20-30	12	253	40		265
30-40	3	878	35		881
40-60	3	409	56		412
60-80	2	120	90		122
80+	1	177	90		178
Total	34	2,454	19		2,488
South East England and London					
0-7	0	1	91		1
7-10	1	103	23		105
10-15	7	338	22		345
15-20	17	676	23		692
20-30	6	1,728	15		1,733
30-40	7	1,793	18		1,800
40-60	10	1,242	25		1,251
60-80	7	423	38		430
80+	1	59	71		60
Total	56	6,362	9		6,418
South West England					
0-7	0	0	61		0
7-10	2	126	16		128
10-15	13	429	18		442
15-20	4	513	17		517
20-30	16	2,551	14		2,567
30-40	14	1,445	18		1,459
40-60	13	1,183	23		1,196
60-80	8	785	35		793
80+	6	300	59		306
Total	76	7,332	8		7,408
West Midlands					
0-7	0	0	-		0
7-10	1	24	29		25
10-15	3	92	33		95
15-20	3	87	42		90
20-30	2	1,260	49		1,262
30-40	4	598	39		603
40-60	4	927	27		931
60-80	2	133	62		135
80+	0	11	76		12
Total	20	3,133	22		3,154

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Table A.13 (continued)

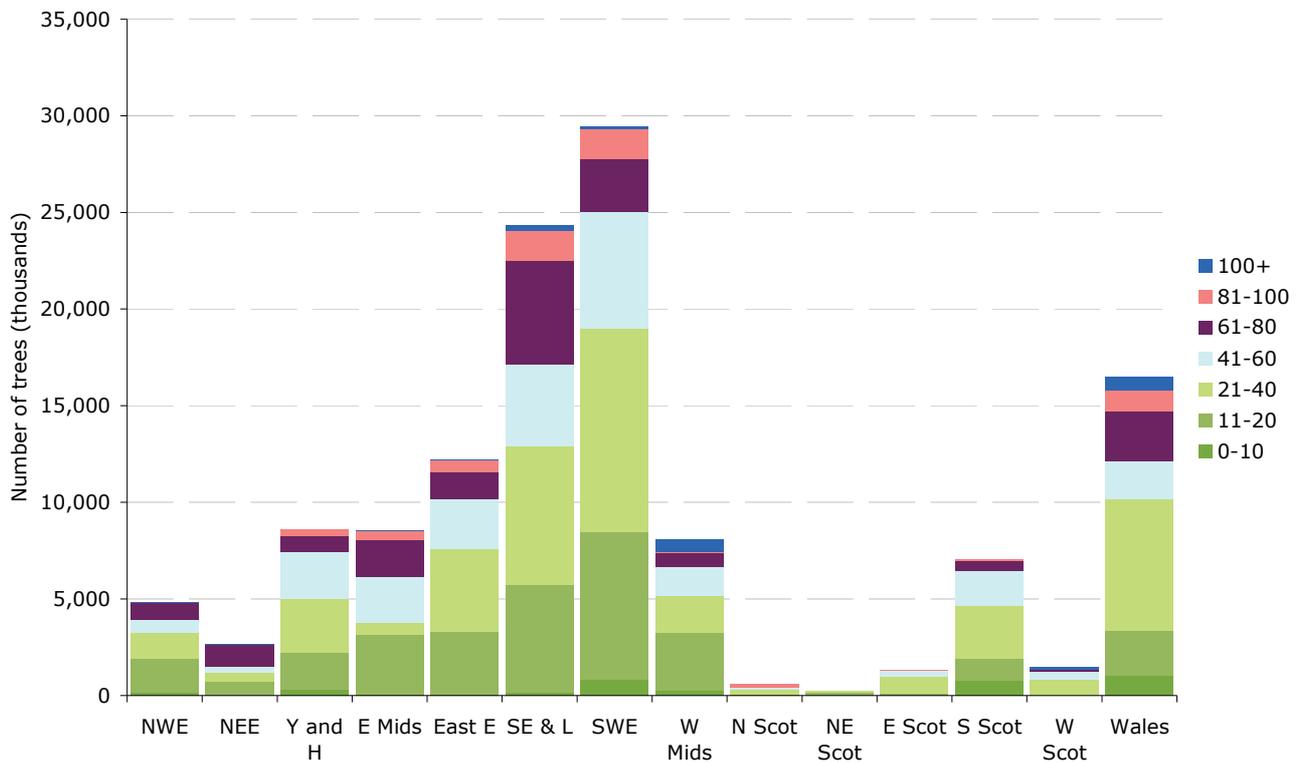
Mean stand DBH (cm)	FC		Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)
North Scotland					
0-7	0	0	-		0
7-10	0	3	99		3
10-15	0	6	74		7
15-20	0	11	62		11
20-30	0	39	92		39
30-40	0	0	-		0
40-60	0	0	-		0
60-80	0	2	93		2
80+	0	0	-		0
Total	1	62	61		63
North East Scotland					
0-7	0	0	-		0
7-10	0	0	59		1
10-15	0	0	-		0
15-20	0	0	-		0
20-30	1	9	95		10
30-40	0	0	-		0
40-60	0	0	-		0
60-80	0	0	-		0
80+	0	0	-		0
Total	2	10	90		12
East Scotland					
0-7	0	0	82		0
7-10	0	2	93		2
10-15	0	57	50		58
15-20	0	31	34		32
20-30	0	4	96		5
30-40	0	92	47		93
40-60	1	9	93		10
60-80	0	196	88		196
80+	0	0	-		0
Total	2	392	46		394

Mean stand DBH (cm)	FC		Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)
South Scotland					
0-7	0	1	96		1
7-10	0	58	30		59
10-15	2	61	24		62
15-20	4	77	40		81
20-30	0	478	43		479
30-40	0	568	48		568
40-60	0	710	74		710
60-80	0	0	-		0
80+	0	0	-		0
Total	7	1,954	31		1,961
West Scotland					
0-7	0	0	102		0
7-10	0	3	64		3
10-15	3	18	84		21
15-20	23	83	93		106
20-30	1	27	81		27
30-40	0	19	94		19
40-60	0	0	-		0
60-80	0	94	92		94
80+	0	0	-		0
Total	26	244	48		271
Wales					
0-7	0	0	59		0
7-10	1	33	24		34
10-15	16	236	21		252
15-20	19	568	48		586
20-30	13	738	30		751
30-40	5	1,102	32		1,106
40-60	4	1,827	35		1,831
60-80	3	402	59		405
80+	1	0	-		1
Total	61	4,906	17		4,967

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Number of measureable trees as at 31 March 2011

Figure A.14 Numbers of trees by age class of ash for NFI regions



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Table A.14 Numbers of trees by age class of ash for NFI regions

Age class (years)	FC		Private sector		Total	
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	number of trees (thousands)	SE%
North West England						
0-10	11.1	168.8	56		179.9	
11-20	10.0	1,715.0	40		1,725.1	
21-40	1.5	1,314.5	40		1,316.0	
41-60	102.2	608.3	34		710.5	
61-80	127.6	719.6	29		847.2	
81-100	8.4	44.4	44		52.8	
100+	6.3	13.0	85		19.4	
Total	267.1	4,583.7	20		4,850.8	
North East England						
0-10	0.0	19.4	73		19.4	
11-20	2.1	697.1	50		699.2	
21-40	0.0	487.7	38		487.7	
41-60	0.1	295.5	48		295.7	
61-80	0.4	1,112.6	35		1,113.0	
81-100	0.0	0.0	-		0.0	
100+	0.0	13.4	86		13.4	
Total	2.6	2,625.8	21		2,628.4	
Yorkshire and Humber						
0-10	0.0	311.9	68		311.9	
11-20	6.2	1,907.4	24		1,913.6	
21-40	22.7	2,775.9	25		2,798.6	
41-60	10.2	2,392.8	23		2,403.0	
61-80	6.5	833.1	33		839.6	
81-100	3.9	308.2	44		312.1	
100+	0.6	0.0	-		0.6	
Total	50.1	8,529.3	12		8,579.4	
East Midlands						
0-10	4.8	29.4	85		34.2	
11-20	73.2	3,046.5	19		3,119.8	
21-40	73.9	533.9	32		607.8	
41-60	166.9	2,225.2	34		2,392.1	
61-80	328.1	1,566.7	30		1,894.9	
81-100	80.9	392.0	53		472.9	
100+	18.9	25.5	93		44.4	
Total	746.9	7,819.2	14		8,566.1	

Age class (years)	FC		Private sector		Total	
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	number of trees (thousands)	SE%
East England						
0-10	2.4	80.9	41		83.3	
11-20	10.7	3,202.3	33		3,213.0	
21-40	30.3	4,267.3	40		4,297.6	
41-60	74.5	2,472.6	34		2,547.1	
61-80	38.4	1,390.2	31		1,428.6	
81-100	40.0	580.9	66		620.9	
100+	1.1	33.8	90		35.0	
Total	197.5	12,028.0	19		12,225.4	
South East England and London						
0-10	0.0	167.7	43		167.7	
11-20	90.6	5,453.0	22		5,543.6	
21-40	53.0	7,175.9	26		7,228.9	
41-60	70.0	4,116.9	16		4,186.9	
61-80	74.9	5,309.0	19		5,383.8	
81-100	41.8	1,492.1	21		1,533.9	
100+	33.8	274.9	37		308.7	
Total	364.0	23,947.0	11		24,311.0	
South West England						
0-10	2.3	825.6	37		828.0	
11-20	62.9	7,597.1	17		7,659.9	
21-40	51.2	10,437.5	15		10,488.8	
41-60	153.0	5,908.4	14		6,061.4	
61-80	37.9	2,684.3	16		2,722.2	
81-100	37.8	1,541.0	23		1,578.9	
100+	51.3	58.9	49		110.2	
Total	396.5	29,056.0	8		29,452.5	
West Midlands						
0-10	7.0	230.7	57		237.7	
11-20	16.4	3,008.2	25		3,024.6	
21-40	65.5	1,838.1	25		1,903.6	
41-60	25.4	1,448.5	48		1,473.9	
61-80	5.2	708.9	32		714.1	
81-100	7.4	75.0	50		82.4	
100+	1.2	626.4	49		627.6	
Total	128.2	7,935.7	16		8,063.9	

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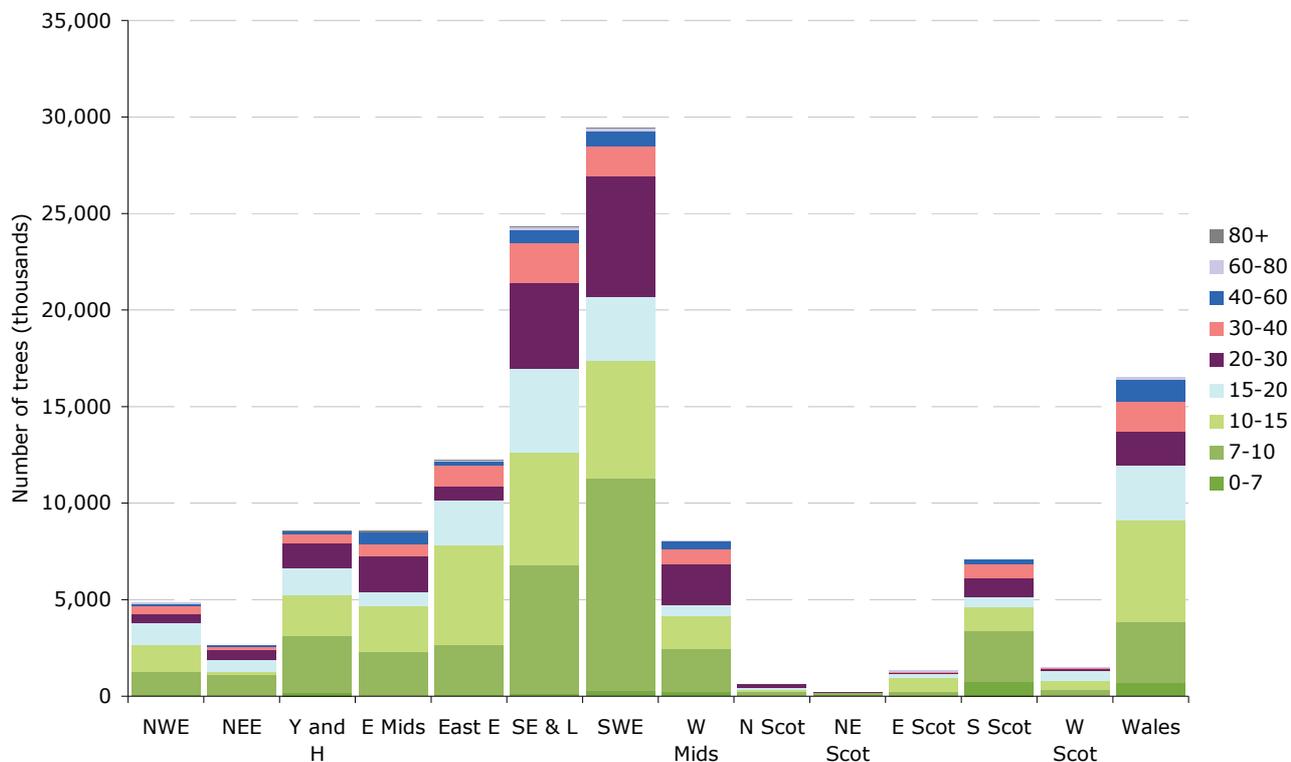
Table A.14 (continued)

Age class (years)	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
North Scotland					
0-10	0.0	0.0	-	0.0	
11-20	0.0	68.4	60	68.4	
21-40	1.1	215.0	94	216.1	
41-60	1.3	137.2	69	138.5	
61-80	4.8	0.0	-	4.8	
81-100	0.0	191.4	92	191.4	
100+	0.6	0.0	-	0.6	
Total	7.8	612.0	47	619.8	
North East Scotland					
0-10	1.4	25.2	102	26.6	
11-20	6.4	107.4	64	113.8	
21-40	4.6	64.7	68	69.3	
41-60	4.7	0.7	108	5.3	
61-80	0.8	0.0	-	0.8	
81-100	0.1	0.0	-	0.1	
100+	0.0	0.0	-	0.0	
Total	18.0	197.9	42	215.9	
East Scotland					
0-10	0.0	0.0	-	0.0	
11-20	0.2	79.6	62	79.8	
21-40	7.1	913.9	34	921.0	
41-60	2.4	297.5	31	299.9	
61-80	2.4	7.2	93	9.6	
81-100	0.9	17.6	57	18.4	
100+	0.0	0.0	-	0.0	
Total	12.9	1,315.8	26	1,328.7	

Age class (years)	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
South Scotland					
0-10	0.0	770.4	32	770.4	
11-20	20.4	1,096.9	27	1,117.4	
21-40	33.0	2,701.2	25	2,734.2	
41-60	15.6	1,795.8	32	1,811.4	
61-80	25.7	527.0	51	552.7	
81-100	2.1	75.3	70	77.4	
100+	3.4	0.0	-	3.4	
Total	100.2	6,966.6	15	7,066.9	
West Scotland					
0-10	0.0	0.0	-	0.0	
11-20	13.0	0.0	-	13.0	
21-40	33.9	788.8	55	822.7	
41-60	33.5	375.0	84	408.4	
61-80	14.1	99.4	70	113.5	
81-100	12.2	0.0	-	12.2	
100+	114.2	0.0	-	114.2	
Total	220.9	1,263.2	42	1,484.1	
Wales					
0-10	0.4	1,053.0	62	1,053.5	
11-20	47.6	2,248.8	27	2,296.5	
21-40	51.8	6,755.9	25	6,807.7	
41-60	184.3	1,785.4	23	1,969.7	
61-80	76.4	2,518.0	29	2,594.4	
81-100	60.2	1,021.4	30	1,081.7	
100+	38.8	644.3	51	683.1	
Total	459.6	16,039.2	14	16,498.8	

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Figure A.15 Numbers of trees by mean stand dbh class of ash for NFI regions



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Table A.15 Numbers of trees by mean stand dbh class of ash for NFI regions

Mean stand DBH (cm)	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
North West England					
0-7	3.2	61.0	100	64.2	
7-10	19.4	1,176.2	26	1,195.6	
10-15	201.9	1,185.8	54	1,387.7	
15-20	41.7	1,112.1	45	1,153.8	
20-30	0.9	439.4	33	440.3	
30-40	0.0	417.5	44	417.5	
40-60	0.0	116.3	47	116.3	
60-80	0.0	75.3	50	75.3	
80+	0.0	0.0	-	0.0	
Total	267.1	4,583.7	20	4,850.8	
North East England					
0-7	0.0	19.4	73	19.4	
7-10	2.1	1,086.5	37	1,088.5	
10-15	0.0	145.2	49	145.2	
15-20	0.3	625.2	45	625.5	
20-30	0.1	501.2	37	501.2	
30-40	0.0	201.3	48	201.3	
40-60	0.2	47.1	62	47.3	
60-80	0.0	0.0	-	0.0	
80+	0.0	0.0	-	0.0	
Total	2.6	2,625.8	21	2,628.4	
Yorkshire and Humber					
0-7	0.0	207.0	61	207.0	
7-10	20.1	2,885.9	20	2,906.0	
10-15	2.0	2,111.7	30	2,113.7	
15-20	5.7	1,393.0	27	1,398.7	
20-30	9.4	1,294.7	31	1,304.1	
30-40	7.2	446.4	28	453.6	
40-60	3.1	183.3	29	186.4	
60-80	2.4	0.0	-	2.4	
80+	0.2	7.3	100	7.5	
Total	50.1	8,529.3	12	8,579.4	
East Midlands					
0-7	0.0	0.0	-	0.0	
7-10	127.5	2,185.2	21	2,312.7	
10-15	161.5	2,209.4	35	2,370.9	
15-20	326.8	391.4	48	718.1	
20-30	101.4	1,768.2	29	1,869.7	
30-40	18.4	579.9	39	598.3	
40-60	8.0	595.8	39	603.8	
60-80	2.2	25.5	93	27.7	
80+	1.1	63.7	93	64.9	
Total	746.9	7,819.2	14	8,566.1	

Mean stand DBH (cm)	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
East England					
0-7	0.0	45.7	57	45.7	
7-10	20.6	2,595.6	38	2,616.2	
10-15	81.4	5,058.4	36	5,139.8	
15-20	44.7	2,276.0	40	2,320.7	
20-30	43.8	726.4	36	770.1	
30-40	4.1	1,043.8	37	1,047.9	
40-60	2.2	232.0	57	234.1	
60-80	0.6	33.8	90	34.5	
80+	0.2	16.2	90	16.4	
Total	197.5	12,028.0	19	12,225.4	
South East England and London					
0-7	0.0	139.7	44	139.7	
7-10	137.4	6,501.3	21	6,638.7	
10-15	68.1	5,778.7	31	5,846.9	
15-20	122.9	4,237.8	22	4,360.8	
20-30	16.6	4,399.5	15	4,416.1	
30-40	10.1	2,068.0	17	2,078.1	
40-60	6.7	685.0	26	691.7	
60-80	1.8	125.0	38	126.8	
80+	0.4	11.9	72	12.3	
Total	364.0	23,947.0	11	24,311.0	
South West England					
0-7	8.0	269.3	52	277.3	
7-10	102.8	10,912.4	14	11,015.2	
10-15	178.8	5,907.6	17	6,086.4	
15-20	35.6	3,278.6	17	3,314.2	
20-30	40.0	6,208.4	15	6,248.4	
30-40	19.6	1,528.1	18	1,547.7	
40-60	8.5	733.6	23	742.0	
60-80	2.3	189.4	35	191.7	
80+	0.9	28.7	57	29.6	
Total	396.5	29,056.0	8	29,452.5	
West Midlands					
0-7	1.6	222.4	60	224.0	
7-10	46.6	2,194.1	28	2,240.7	
10-15	37.3	1,616.9	34	1,654.3	
15-20	27.6	530.6	42	558.1	
20-30	5.8	2,168.8	41	2,174.6	
30-40	5.7	751.8	41	757.5	
40-60	2.8	404.7	26	407.5	
60-80	0.8	44.1	63	44.9	
80+	0.1	2.4	76	2.4	
Total	128.2	7,935.7	16	8,063.9	

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Table A.15 (continued)

Mean stand DBH (cm)	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
North Scotland					
0-7	0.0	0.0	-	0.0	
7-10	1.1	238.8	85	239.9	
10-15	3.1	105.0	66	108.2	
15-20	3.2	76.2	62	79.3	
20-30	0.4	191.4	92	191.8	
30-40	0.0	0.0	-	0.0	
40-60	0.0	0.0	-	0.0	
60-80	0.0	0.6	93	0.6	
80+	0.0	0.0	-	0.0	
Total	7.8	612.0	47	619.8	
North East Scotland					
0-7	0.0	85.4	75	85.4	
7-10	12.2	82.9	56	95.1	
10-15	0.2	0.0	-	0.2	
15-20	1.9	0.0	-	1.9	
20-30	3.4	29.6	95	33.0	
30-40	0.1	0.0	-	0.1	
40-60	0.1	0.0	-	0.1	
60-80	0.0	0.0	-	0.0	
80+	0.0	0.0	-	0.0	
Total	18.0	197.9	42	215.9	
East Scotland					
0-7	0.0	0.0	-	0.0	
7-10	4.0	207.7	78	211.7	
10-15	4.0	743.0	36	747.0	
15-20	2.9	200.6	34	203.5	
20-30	0.9	18.6	96	19.5	
30-40	0.7	90.6	47	91.2	
40-60	0.4	7.2	93	7.6	
60-80	0.0	48.2	88	48.2	
80+	0.0	0.0	-	0.0	
Total	12.9	1,315.8	26	1,328.7	

Mean stand DBH (cm)	FC		Private sector		Total
	number of trees (thousands)	number of trees (thousands)	SE%	number of trees (thousands)	
South Scotland					
0-7	0.0	741.6	33	741.6	
7-10	49.1	2,575.6	28	2,624.7	
10-15	21.6	1,250.0	24	1,271.6	
15-20	28.7	463.0	36	491.6	
20-30	0.3	961.3	40	961.6	
30-40	0.5	767.6	48	768.1	
40-60	0.0	207.5	74	207.6	
60-80	0.1	0.0	-	0.1	
80+	0.0	0.0	-	0.0	
Total	100.2	6,966.6	15	7,066.9	
West Scotland					
0-7	0.0	0.0	-	0.0	
7-10	41.1	291.1	79	332.2	
10-15	43.4	420.2	87	463.6	
15-20	135.2	396.8	80	532.0	
20-30	1.0	76.4	76	77.4	
30-40	0.1	49.7	94	49.8	
40-60	0.0	0.0	-	0.0	
60-80	0.0	29.1	92	29.1	
80+	0.0	0.0	-	0.0	
Total	220.9	1,263.2	42	1,484.1	
Wales					
0-7	0.0	707.2	86	707.2	
7-10	65.3	3,053.3	23	3,118.5	
10-15	211.7	5,060.9	20	5,272.6	
15-20	139.1	2,733.6	37	2,872.7	
20-30	33.1	1,696.7	28	1,729.8	
30-40	6.3	1,548.1	31	1,554.4	
40-60	3.1	1,121.7	36	1,124.7	
60-80	0.8	117.7	61	118.5	
80+	0.3	0.0	-	0.3	
Total	459.6	16,039.2	14	16,498.8	

Appendix B: species list

Table B.1 List of broadleaved species in the National Forest Inventory

Grouping	Common name	Botanical name
oak	Oak (robur/petraea)	Quercus spp
	Pedunculate/common oak	Quercus robur
	Sessile oak	Quercus petraea
beech	Beech	Fagus sylvatica
sycamore	Sycamore	Acer pseudoplatanus
ash	Ash	Fraxinus excelsior
	Narrow-leafed ash	Fraxinus angustifolia
	Red ash	Fraxinus pennsylvanica
	White ash	Fraxinus americana
birch	Birch (downy/silver)	Betula pubescens/pendula
	Downy birch	Betula pubescens
	other birches	Betula spp
	Silver birch	Betula pendula
sweet chestnut	Sweet chestnut	Castanea sativa
hazel	Hazel	Corylus avellana
hawthorn	Hawthorn species	Crataegus spp
alder	Alder	Alnus spp
	Common alder	Alnus gultinosa
	Green alder	Alnus viridis
	Grey alder	Alnus incana
	Italian alder	Alnus cordata
	Red alder	Alnus rubra
willow	Crack willow	Salix fragilis
	Goat willow	Salix caprea
	Grey willow	Salix cinerea
	other willows	Salix spp
	White willow	Salix alba

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Grouping	Common name	Botanical name
	Aspen	Populus tremula
	Big leaf maple	Acer macrophyllum
	Bird cherry	Prunus padus
	Black poplar	Populus nigra
	Black walnut	Juglans nigra
	Blackthorn	Prunus spinosa
	Box	Buxus spp
	Cider gum	Eucalyptus gunnii
	Common lime	Tilia europaea
	Common walnut	Juglans regia
	Crab apple	Malus sylvestris
	Downy oak	Quercus pubescens
	Elm	Ulmus spp
	English elm	Ulmus procera
	Field maple	Acer campestre
	Grey poplar	Populus canescens
	Holly species	Ilex spp
	Holm oak	Quercus ilex
	Hornbeam	Carpinus betulus
	Horse chestnut	Aesculus hippocastanum
	Hungarian oak	Quercus frainetto
	Hybrid poplar	Populus serotina/trichocarpa
	Large-leaved lime	Tilia platyphyllos
	Lenga	Nothofagus pumilio
	Lime	Tilia spp
	London plane	Platanus x acerifolia
	Mixed broadleaves	
other broadleaves	Norway maple	Acer platanoides
	Oriental beech	Fagus orientalis
	other broadleaves	
	other cherry spp	Prunus spp
	other Eucalyptus	Eucalyptus spp
	other Nothofagus	Nothofagus spp
	other oak spp	Quercus spp
	other poplar spp	Populus spp
	other walnut	Juglans spp
	Paper-bark birch	Betula papyrifera
	Plane spp	Platanus spp
	Pyrenean oak	Quercus pyrenaica
	Raoul/rauli	Nothofagus nervosa
	Red oak	Quercus borealis
	Roble	Nothofagus obliqua
	Rowan	Sorbus aucuparia
	Shagbark hickory	Carya ovata
	Shining gum	Eucalyptus nitens
	Silver maple	Acer saccharinum
	Small-leaved lime	Tilia cordata
	Smooth-leaved elm	Ulmus carpinifolia
	Tulip tree	Liriodendron tulipifera
	Turkey oak	Quercus cerris
	White oak	Quercus alba
	White poplar	Populus alba
	Whitebeam	Sorbus aria
	Wild cherry/gean	Prunus avium
	Wild service tree	Sorbus torminalis
	Wych elm	Ulmus glabra