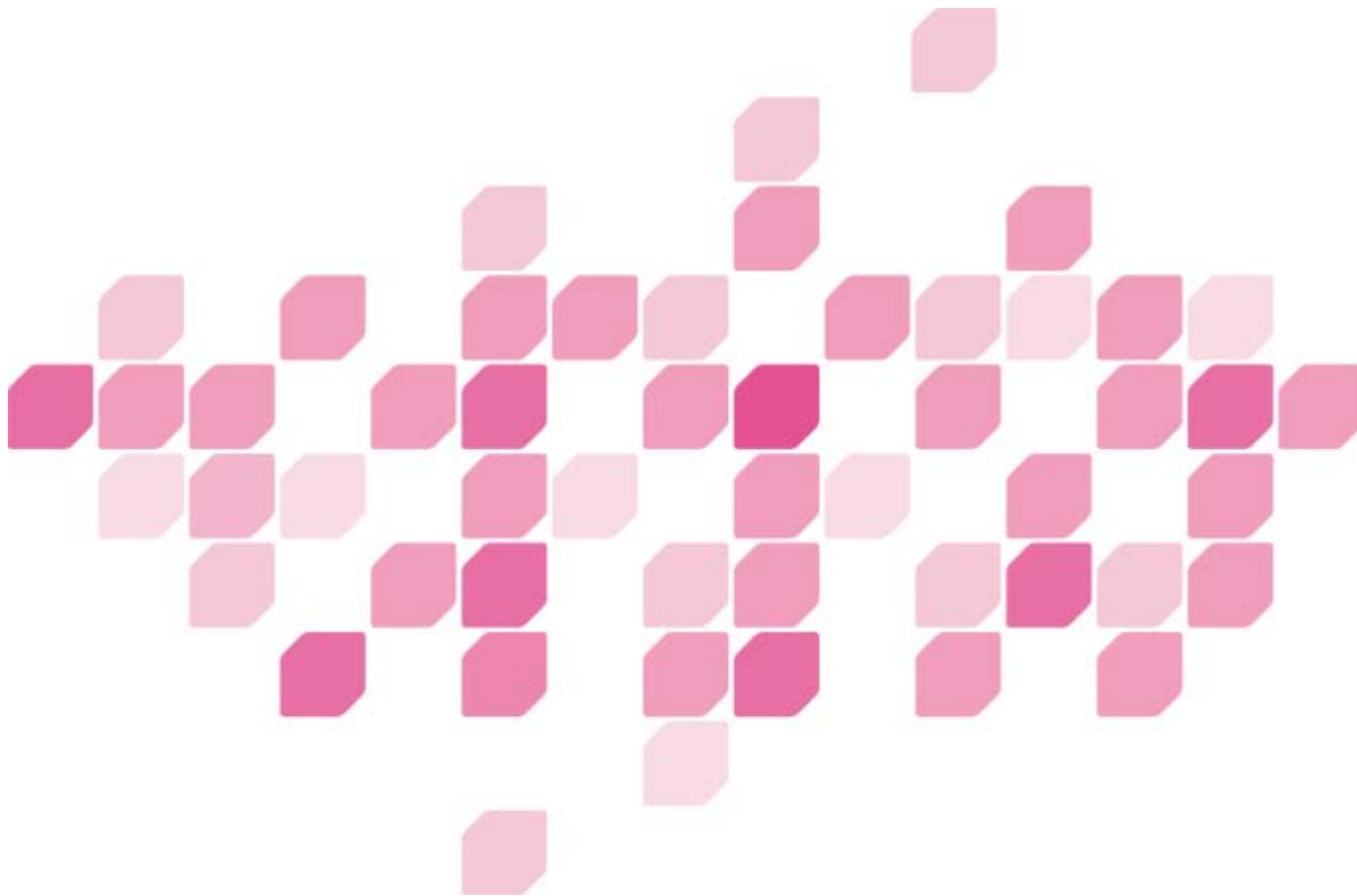


All Forests Visitor Monitoring
Survey of visitors to FCS forests
June 2004 to June 2007

Forestry Commission Scotland
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FINAL REPORT



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Executive Summary

Background

- TNS Travel and Tourism were commissioned by Forestry Commission Scotland (FCS) in 2004 to undertake surveys and counts across all of their Forest Districts. Due to the scale of this exercise, fieldwork was spread across a three year period from June 2004 to June 2007.
- During the first year of surveying, between June 2004 and May 2005, five Forest Districts were surveyed with fieldwork undertaken in Buchan, Galloway, Lochaber, Scottish Borders and West Argyll. The second year of surveying took place between June 2005 and May 2006 and covered the Scottish Lowlands, Moray, Lorne, Dornoch and Tay Forest Districts. Year three fieldwork was undertaken in the Ae, Cowal and Trossachs, Fort Augustus, Kincardine and Inverness Forest Districts.¹
- This report is based on the total results across all three years of surveying, between June 2004 and June 2007.
- In summary, the objectives of this survey are as follows
 - To measure volume of visitors across FCS forests;
 - To obtain information on visitor profiles.
- Surveying took place from June 2004 to June 2007 with just over 5,000 hours of fieldwork undertaken during 1,158 days. During this period, 2,694 face to face interviews were achieved.

¹ There were 15 Forest Districts when this survey commenced in June 2004. Since then Kincardine and Buchan have merged to form Aberdeenshire Forest District.

Estimated visitor numbers

- In each of the Forest Districts the forest blocks selected to be included in the survey were chosen as a stratified representation of all FCS forests in the area in terms of estimated levels of usage and the size of the surrounding population. To obtain an estimate of total numbers of visits to all FCS forests in each of the districts, the average number of visits per access point at forests included within the survey was then applied to other similar forests in the district. As such, estimates of total numbers of visits to forests in each of the Forest Districts have been obtained, as detailed in the table overleaf.
- These figures cover the 12 month periods when surveying was undertaken in each district. The sum of these estimates is around 8.2 million. In addition to this total, FCS estimate that a further 150,000 to 200,000 visits are taken annually to events in their forests and have not been counted within the scope of the All Forests survey. For example, fieldwork was not undertaken during events such as car rallies, mountain bike competitions, and some seasonal events such as the Enchanted Forest event at Faskally forest in Tay Forest District.
- In addition, as described in Appendix 1, survey fieldwork was only conducted during daylight hours. By using a number of vehicle counters spread across the FCS estate it is estimated that around 300,000 visits are made annually during hours of darkness.
- Combining these totals provides an overall estimate of **8.7 million visits** to FCS forests per year.

Estimates of total annual visits to FCS forests 2004 to 2007 by Forest District

	Visits over survey period	Survey period
Dornoch	119,000	2005-2006
Inverness ²	639,000	2006-2007
Fort Augustus ³	268,000	2006-2007
Lochaber	559,000	2004-2005
Lorne	297,000	2005-2006
West Argyll	292,000	2004-2005
Moray	360,000	2005-2006
Aberdeenshire, of which		
Buchan	694,000	2004-2005
Kincardine	789,000	2006-2007
Tay	717,000	2005-2006
Cowal & Trossachs	471,000	2006-2007
Scottish Lowlands	938,000	2005-2006
Scottish Borders ³	821,000	2004-2005
Ae	413,000	2006-2007
Galloway	812,000	2004-2005
Total	8.2 million	

² The pilot survey conducted in 2002 estimated 2.2 million annual visits to forests in Inverness Forest District. It is likely that three factors have contributed to the bulk of the difference between that estimate and the 639,000 visits estimated here; the more limited amount of fieldwork conducted during the pilot survey (4 months only); the basic calculations used to gross up the pilot survey results; the selection of different sites for each survey. In particular, Glenmore Forest Park was not included directly in 2006-2007; combining with other sites may have under-estimated the total.

³ In addition to data from this survey, data from other sources, including vehicle counters, have been used to refine the estimates for Fort Augustus and Scottish Borders.

Visitor and visit characteristics

Profile of visitors

- In terms of the timing of visits 9% took place before 10am, 75% took place between 10am and 4pm and 16% took place later in the day. While 59% of visits were on weekdays, 17% took place on Saturdays and 24% were on Sundays.
- Slightly over half of visitors to FCS forests were male (54%) while 46% were female. In terms of age profile, just over two-fifths of all visitors were aged 45 or over (43%) while two in ten were between the ages of 35 and 44 (20%). 17% of visitors were over the age of 60.
- The average party size was 2.1 people with slightly less than half of respondents visiting on their own (42%). The average party size was slightly higher in the Cowal and Trossachs, Dornoch and Tay Forest Districts (2.5, 2.3 and 2.3 people respectively) but lowest in the Scottish Lowlands district (1.7 people).
- 85% of visitors were from Scotland, while one in ten was from England (10%). A much smaller number of visitors came from overseas (1%).
- 5% of visitors stated that they or a party member had a disability or special need.
- Almost half of visitors were on a local day trip of less than six miles from home (49%) while 33% were on a day trip involving a longer journey from home and 18% visited a FCS forest while on a holiday or short break.
- Amongst forest users who were on a holiday or short break when they visited the forest, the main UK areas of origin were Scotland (42%), Yorkshire (7%), South East England (7%), the Midlands and the North East (6% each). 8% of forest visitors who were on a holiday or short break were from overseas.

- Just over three in ten forest users who were on a holiday or short break stayed in a tent, caravan or cabin (32%) while 22% stayed in a hotel, guest house or bed and breakfast. 20% used self-catering accommodation and 16% stayed at the home of a friend or relative.
- Forest users who were on a holiday or short break spent an average of 9.0 nights away from home and an average of 8.2 nights in Scotland.
- Visitors on overnight trips were also asked to state the total number of visits they had taken to forests during their current holiday (including their current forest visit). Overall, an average of 4.7 visits were taken to forests, with just over half of visitors indicating that they had made between 1 and 3 visits (54%).
- All visitors were asked to indicate how far they had travelled to reach the forest, either from their home or the holiday accommodation they had used the previous night. On the whole, the largest proportions of visitors had travelled the shortest distances with 58% travelling under 6 miles and 19% travelling between 6 and 15 miles. The largest proportions of local users (i.e. travelling under 6 miles from their home or holiday accommodation) were recorded in the Scottish Lowlands and Moray (77% each), while visitors to forests in the Scottish Borders were likely to have travelled further (51% travelled more than 15 miles). In the Scottish Borders the larger proportion of visitors travelling further was related to the large number of visitors who were taking part in mountain biking at Glentress (across the forest estate as a whole 60% of mountain bikers travelled more than 15 miles to get to the forest they visited).

Trip profile

- Most visitors to forests had been to the forest before (84%). Indeed, 20% of those interviewed visited the forest every day.
- Just under four-fifths of visitors travelled to the forest by car (78%), 18% walked to the forest while much smaller proportions used other types of transport. Less than 1% of all visitors to Scottish forests used public transport to reach the forest.
- Overall, the average length of visit to Scottish forests was 1 hour and 23 minutes. 13% stayed less than 30 minutes in the forest, 46% stayed between 30 minutes and 1 hour and 34% stayed between 1 and 2 hours. The remaining 7% stayed for a longer duration.
- The most popular activities in Scottish forests were dog walking (50%), other walking (29%) and cycling/ mountain biking on waymarked tracks (10%). The highest proportions of dog walkers were recorded in Moray and Galloway (70% and 62%), while more visitors were walking without a dog in Lorne* (39% each). Cycling or mountain biking on waymarked tracks was most frequently recorded in the Scottish Borders (47%) and Inverness (24%) Forest Districts⁴.
- Just under two-thirds of visitors suggested improvements required at the forest they were visiting (64%) while the remaining 36% of visitors stated that they could not think of anything or stated that no improvements were needed. The most frequently provided suggestions related to improvements to signposting, improvements to paths and reducing the amount of dog dirt in the forest.

* Caution: sample size less than 100

⁴ Due to the inclusion of the Glentress (Scottish Borders) and Learnie Red Rocks (Inverness) sites in the survey, both with high frequencies of use by mountain bikers, it should be noted that these results may not be representative of these Forest Districts overall.

Value of forests

- All visitors were asked to specify how much money they had personally spent on the day of their visit, and if they were on an overnight trip, how much they had spent or planned to spend on accommodation. 48% spent nothing and three in ten visitors spent £20 or less in total (30%). The average spend per person across all visitors (i.e. including those who spent nothing) was £17.
- Average spend per visitor varied between Forest Districts. The highest average spend per person, including those who spent nothing, was in Fort Augustus* (£35) while spend was lowest in the Scottish Lowlands (£6).
- Just 1% of all visitors stated that the forest was ‘not important at all’ in their decision to visit the area and 12% stated that the forest was ‘not relevant’ because they lived in the local area. However, around a quarter indicated that the forest was ‘the only reason’ (23%) they had chosen to visit the area and 40% stated that it was ‘very important’.
- By combining information on average levels of spend per person per day to data relating to the influence of forests on decisions to visit, total spend by those visitors whose decisions to visit the area were affected by the presence of a forest to visit has been calculated. This calculation suggests that visitors who were influenced to take their visit due to the forest and its facilities spent approximately £38.9 million per year. This expenditure was made during the day of the forest visit and included overnight food and drink, accommodation, transport and non-routine shopping.

*Caution: sample size less than 100

A. Background and methodology

Forestry Commission Scotland

Forestry Commission Scotland (FCS) serves as the Scottish Government's forestry department and is the largest provider of outdoor recreation in Scotland. Its mission is to protect and expand Scotland's forests and woodlands and increase their value to society and the environment.

Everyone has a right of responsible access to the Scottish countryside and this includes the woodland and forests that covers one sixth of Scotland. The publicly owned national forest estate managed by Forestry Commission Scotland makes up about a third of this woodland (457 thousand hectares).

Over several decades FCS have developed Scotland's largest single suite of outdoor recreation infrastructure. The national forest estate is a place for all types of recreation from quiet reflection and walking to international sporting competitions such as car rallying and mountain biking. It thus contributes to active lifestyles and improved well being as well as nature conservation, timber production and provides opportunities for others to develop businesses.

In addition FCS supports other woodland owners with grants, felling licences, advice and regulation, it promotes the benefits of forests and forest products and advises Ministers on forestry policy.

FCS believes that the management of the national forest estate is not an end in itself, but rather a means to an end. The ultimate outcomes sought through management of the national forest estate include improved health and well-being arising from access to, and enjoyment of, the

national forests. Forestry Commission Scotland wishes to increase the opportunities for everyone to enjoy visits to the national forest estate and will use this survey to assess both the number and diversity of visitors.

There are fourteen⁵ Forest Districts which protect and maintain the public forest estate through planning, creating and management of woodlands, including recreational activities. Details of the scale of these Forest Districts are provided in Table A-1 overleaf.

⁵ There were 15 Forest Districts when this survey commenced in June 2004. Since then Kincardine and Buchan have merged to form Aberdeenshire Forest District.

Table A-1 FCS woodland area by Forest District

	Land Area (000's ha)* †	FC Woodland Area (000's Ha)*†	% area that is FC woodland
Dornoch	1,135	41	3.6%
Inverness	994	25	2.5%
Fort Augustus	535	30	5.6%
Lochaber	414	21	5.1%
Lorne	357	31	8.7%
West Argyll	317	48	15.1%
Moray	215	21	9.8%
Aberdeenshire	663	30	4.5%
Tay	865	31	3.6%
Cowal & Trossachs	272	35	12.9%
Scottish Lowlands	869	30	3.5%
Scottish Borders	492	22	4.5%
Ae	364	27	7.4%
Galloway	387	63	16.3%
Total	7,879	457	5.8%

*Planimetric Areas, taking no account of slope (area calculations which take account of slope are called Surface Areas; Surface Area will increase gross area, compared to planimetric areas, especially if there are significant slopes)

†Areas as at 31 March 2007

Scottish Forestry Strategy 2006

The Scottish Forestry Strategy 2006 is the Scottish Government's framework for taking forestry forward through the first half of this century and beyond. One of the seven key themes of the Strategy is 'Access and Health'; the purpose of this theme is to:

- Make access to woodlands easier for all sectors of society;
- Use woodland access to help improve physical and mental health in Scotland;
- Provide a greater range of ways for people to enjoy woodlands.

Access and Health was selected as a theme for a number of reasons, including the following facts and beliefs:

- The physical and mental health of 56% of men and 67% of women in Scotland is at serious risk from inactivity. The greatest public benefit comes from encouraging inactive people to participate in moderate activity;
- Children who visit, or use, woodlands continue to do so as adults;
- Woodlands are a naturally therapeutic environment, and have a positive effect on anxiety and depression by reducing stress and mental fatigue. They are an excellent setting to help people with behavioural and mental health problems;
- Many people in Scotland are unable or unwilling to take part in enjoyable woodland activity due to factors such as disability, distance, low income, or fear of crime. Using or creating woodland nearer to people, and creating opportunities for group activity can overcome these forms of social exclusion;
- Enhancing access provides opportunities for countryside sports, education, lifelong learning, job opportunities and income generation. It also has a key role in supporting the tourism sector and rural development;

- Woodlands can provide a sense of wonder and enjoyment for all. The historic environment and cultural setting of woodlands helps create a link between people and the past, ancient trees and woodlands capture public imagination, and biodiversity and geodiversity can help stimulate interest in environmental matters;
- Recreational use of woodlands can create new business opportunities and income for woodland owners.

The success of the strategy will be measured not simply by total numbers of visitors but by delivery of changes in the real world:

- Economic benefits to communities, particularly fragile rural communities;
- Easier access to and through woodlands for all sectors of society;
- Physical and mental health improvements for the people of Scotland;
- Better quality of life;
- Urban and rural regeneration.

All Forests Scotland Survey Methodology

The Forestry Commission have collected information on the number and profile of visitors to their forests for a number of years. A variety of methodologies have been used including the installation of permanent mechanical counters, people and vehicle counters and, until 2001, a rolling programme of face to face surveys at a core of 'key' forests.

In late 2001 TNS Travel and Tourism were commissioned to pilot a survey method developed by Cheltenham and Gloucester College of Higher Education which aimed to provide more reliable estimates of visitor numbers and activities and an accurate profile of visitors to a wider range of Forestry Commission sites, including those classified as 'non-key' sites. In particular it was hoped that this 'All Forests' method would provide more accurate information on local usage of forests.

The pilot fieldwork was undertaken in the New Forest and Inverness Forest Districts in two waves, between February and May 2002 and August and September 2002. A total of 1,437 hours of fieldwork were undertaken at 15 forest blocks. As a result of this pilot a number of fairly minor changes were suggested and made to the fieldwork materials and approaches to fieldwork scheduling. As a whole the methodology was found to achieve its objective of producing data regarding visitor numbers and profiles across large geographical areas.

Following the success of the pilot, TNS Travel and Tourism were commissioned by Forestry Commission Wales (FCW) to undertake surveying using this methodology across their four Forest Districts, at a total of 38 forest blocks. Fieldwork for this survey took place from January 2004 to January 2005 with results published in September 2005.

TNS Travel and Tourism were also commissioned by FCS to undertake surveying using the same methods across all 15⁶ of their Forest Districts. Due to the scale of this exercise, fieldwork was spread across a three-year period from June 2004 to June 2007, and divided up as shown overleaf in Table A-2.

⁶ Since this project commenced in 2004 the number of Forest Districts has reduced to 14, following the merger of Kincardine and Buchan to form the new Aberdeenshire Forest District.

The key objectives of this survey were as follows:

- To measure the volume of visitors across the whole FCS estate and in each of the districts;
- To obtain information on visitor profiles.

This report provides the results of the surveying; copies of the questionnaire, count sheet and contact sheet are appended.

Geographical coverage

Face to face interviews and counting of visitors was undertaken from June 2004 to June 2007 according to the schedule shown below in Table A-2

Table A-2 - Survey schedule

Survey year	Survey Period	Districts surveyed (number of forest blocks surveyed)
1	June 2004 - May 2005	Aberdeenshire (Buchan (8)), Lochaber (6), West Argyll (7), Scottish Borders (8), Galloway (9)
2	June 2005 - May 2006	Dornoch (11), Moray (6), Lorne (11), Tay (10), Scottish Lowlands (14)
3	July 2006 - June 2007	Inverness (11), Fort Augustus (4), Aberdeenshire (Kincardine (4)), Cowal & Trossachs (6), Ae (8)

The forest blocks included in the survey were selected by FCS as a stratified representation of all of the blocks in each of the districts, on the basis of population levels within 15km of the site and perceived levels of visitor usage. At a combined level, the blocks selected are

representative of the range of facilities and activities available in FCS woodland, but this is not always the case at a district level. Approximately a fifth of each district's forests was included in the survey.

Each of the Forest Districts varies somewhat in terms of the size of forest blocks, proximity to populated areas and facilities provided⁷. A map illustrating the locations of the survey blocks is provided on page 13 while summaries of the main characteristics of each of the districts are provided in the interim annual reports.

The forest blocks included in each year of surveying are numbered as follows (Tables A-3, A-4 and A-5):

Table A-3 Year 1: June 2004 - May 2005

Aberdeenshire (Buchan)	Scottish Borders	Galloway	Lochaber	West Argyll
14 Bennachie 28 Dunbennan 33 Dunnyduff 34 Gartly 36 Delgarty 40 Balchers 44 Sillyearn 45 Clashindarroch	1 Shankend 5 Lethem 11 Meadshaw 14 Newcastleton 21 Swinnie 33 Thornylee 37 Glentress 45 Ladyurd	2 Dunragit 4 Torrs Warren 12 Corsemalzie 21 Knockbain 25 Carrick 26 Carrick Forest Drive 31 Castlemaddy & Dundeugh 43 Kilsture 45 Barrhill, Kirkcudbright	1 Loch Sunart East 4 Leanachan 5 South Laggan 6 Glen Loy 7 Callop 20 Loch Sunart West	2 Shira Achnatra 6 Inverliever Collaig 19 Kilmichael 25 Knapdale Crinan 30 Torinturk 36 Carradale Walks 38 Lussa Forest

⁷ A map illustrating a typical forest block and the different types of access point is provided in Appendix 5.

Table A-4 Year 2: June 2005 - May 2006

<u>Dornoch</u>	<u>Moray</u>	<u>Lorne</u>	<u>Tay</u>	<u>Scottish Lowlands</u>
5 Braehour 11 Golticarg & Rumster 21 Rosal 28 Guns Wood 45 Achany 49 Braelangwell 52 Rogart 55 Skelbo 56 Harriets 59 Morangie 60 Lamington	3 Monaughty 5 Roseisle 7 Lossie 9 Teindland 11 Scootmore 20 Ordiequish	2 Ardmore 6 Aros Park 17 Quinish 26 Lochaline 34 Balcadine 41 Cologin 42 Duror 47 Glen Creran 49 Glen Lochy South 55 Inverarden and Benmore 56 Inverawe	5 Glen Prosen 8 Faskally 12 Drummond Hill 16 South Rannoch 17 Barracks 27 Murray's Hill 28 Deuchny Wood 40 Blackcraig 55 Glen Sherup 59 Tentsmuir	1 Brakenhirst 2 Callendar 3 Cardenden 4 Carron Valley 5 Dean 6 Devilla 7 Drumbow 8 Lochwood 9 Forth 10 Garshellach 11 Kirkpatrick 12 Pendriech 13 Selm Muir 14 Torr Righ

Table A-5 Year 3: July 2006 - June 2007

<u>Inverness</u>	<u>Fort Augustus</u>	<u>Aberdeenshire (Kincardine)</u>	<u>Cowal & Trossachs</u>	<u>Ae</u>
7 Corriemollie/ Strathgarve 8 Strathconon 18 Craig Phadraig 19, 20 Woodend & Ord Hill 26 Littleburn/Cloutie Well 33 Learnie 36 Littlemill 41 Culloden Wood 42 Culloden Muir 45 Laiken	2 Enrick 3 S. Loch Ness 11 Strome 18 Glen Varagill	10 Durriss 16 Kirkhill 20 Banchory 23 Ballater	7 Callendar Crag 11 Cruach Benmore 12 Cruach Tairbeirt 13 David Marshall Lodge and Forest Drive 34 Strathlachlan 37 Strathyre West	1 Mabie 17 Queensberry 20 Rascarrel 21 Kirkland 22 Criffel 28 Heathall 44 Brownmoor 49 Rivox

Timing of fieldwork

At each of the blocks included in the survey, interviewing and counting took place at every access point, following the methods outlined in the All Forests Methodology Guidance notes⁸. Essentially, this approach involved a total of 9 one-hour duration fieldwork periods being undertaken at every access point to the sampled forest blocks. Following the guidance, these periods were distributed across different days of the week with a target of 3 during weekdays, 3 on Saturdays and 3 on Sundays. In terms of time of day, around half of the fieldwork periods were undertaken between 10am and 4pm (mid), a quarter were undertaken before 10am (early) and a quarter were after 4pm (late).

During each year of surveying, following the first six months or so of fieldwork, those access points where no visitors or very low numbers of visitors had been encountered during interviewing shifts were removed from the fieldwork schedule. Conversely, representation of the access points where the largest number of visitors had been encountered was increased for the final six months of fieldwork⁹ in an attempt to increase the number of interviews undertaken.

Fieldwork at each forest block was undertaken fairly evenly across the 12 months to make it possible to take account of seasonal variations in visitor numbers, thereby providing more accurate data to use in the subsequent modelling of annual visitor numbers.

Counting

During each one hour period interviewers counted the total numbers of visitors entering and leaving at each access point in total and according to their method of transport (e.g. on foot, on bicycle). When working at a car park interviewers also recorded the total number of vehicles parked at the start and end of the counting period. A copy of the count sheet used is appended¹⁰.

⁸ See Appendix 1

⁹ Variations in the amount of fieldwork time spent at access points have been taken into account in the analysis of results and production of estimates of visitor numbers.

¹⁰ See Appendix 4

Interviews

Interviewing of visitors was undertaken at each access point throughout the fieldwork period. Respondents were selected randomly to guarantee representative results and the conduct of interviews 'on-site' ensured that responses were immediate with no problems of respondent recall.

The survey took the form of an 'exit survey' with respondents interviewed at the end of their visit to each site to ensure that their actual behaviour patterns were recorded rather than their intentions. Visitors were targeted on the basis of the next person to leave on completion of the previous interview. This procedure maximised the number of interviews completed per hour whilst maintaining the random selection of respondents.

In circumstances where a group of people or a family left together, the "next birthday" rule was used to select one respondent per group or family for interview. The "next birthday" rule is a standard market research industry method that is widely used in face to face surveys to ensure that the oldest member of the family or the head of the group cannot self-select himself or herself as the respondent. All members of the group or family aged 16 years or over were eligible for selection, thus ensuring that the principles of random sampling were maintained.

The questionnaire used in the survey is provided in Appendix 2.

Fieldwork achieved

Over the full survey period over 5,000 hours of fieldwork were undertaken during 1,158 days. During this period 2,694 interviews were achieved, an average of around 0.5 interviews per hour.

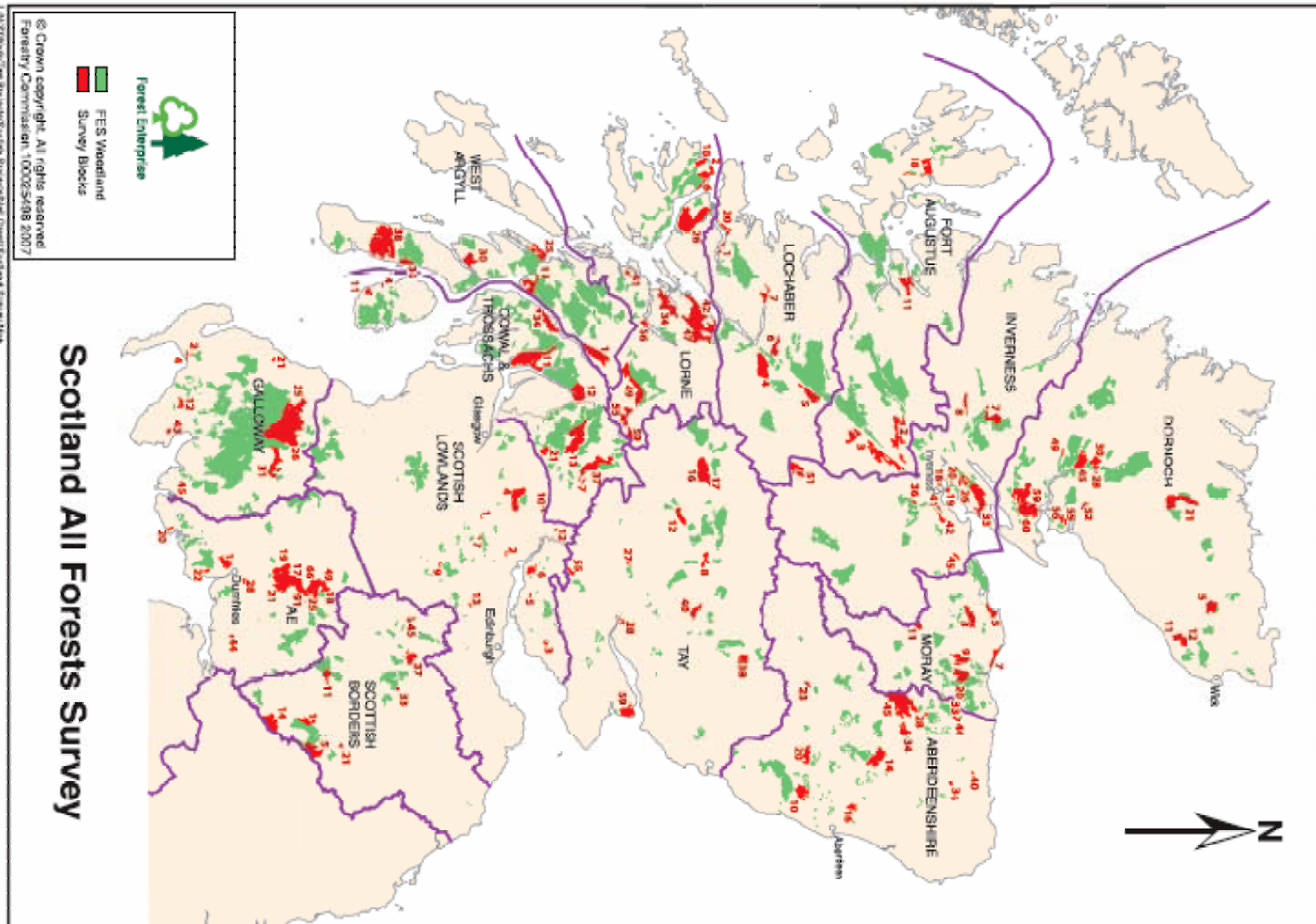
The table below summarises fieldwork achieved in each Forest District.

Table A-6 Fieldwork achieved by Forest District

	Days of fieldwork undertaken	Hours of counting and interviewing	Interviews achieved	Average interviews per hour
Dornoch	57	226	98	0.4
Inverness	116	506	208	0.4
Fort Augustus	63	333	79	0.2
Lochaber	73	332	51	0.2
Lorne	81	352	94	0.3
West Argyll	41	161	32	0.2
Moray	80	344	156	0.4
Aberdeenshire	128	583	314	0.5
Tay	53	229	218	0.9
Cowal and Trossachs	111	460	285	0.6
Scottish Lowlands	137	592	564	0.9
Scottish Borders	92	342	268	0.8
Ae	63	295	189	0.6
Galloway	63	313	138	0.4
Total	1,158	5,068	2,694	0.5

In Section C of this report each table and chart contains details of the numbers of interviews that results are based upon. Results obtained in districts with the smallest sample sizes should be treated with caution (most notably West Argyll, Lochaber and Fort Augustus).

Figure A-1 – Forest blocks included in survey and Forest District boundaries



B. Volume of visits to FCS forests

Total visits to FCS forests included in survey

By following the approaches outlined in the previous section it has been possible to obtain estimates of the total number of visits taken to each of the forest blocks surveyed between 2004 and 2007. While the individual estimates for each of these blocks are included in the interim annual reports, the estimates of total visits to all forests in each of the districts is provided overleaf in Table B-1.

In each of the Forest Districts the forest blocks selected to be included in the survey were chosen as representative of all forests in the area in terms of estimated levels of usage (high, medium or low) and the size of the surrounding population (high, medium or low). By applying these categorisations, each forest was placed into one of the following 9 'strata':

Strata	Population	Usage
1	High	High
2	High	Medium
3	High	Low
4	Medium	High
5	Medium	Medium
6	Medium	Low
7	Low	High
8	Low	Medium
9	Low	Low

To obtain an estimate of total numbers of visits to all FCS forests in each of the Forest Districts, the average number of visits per access point at forests included within the survey were applied to other forests in the same strata.

As such the following estimates of total numbers of visits have been obtained for each of the Forest Districts. These figures cover the 12 month periods when surveying was undertaken in each district.

Table B-1– Estimates of total annual visits to FCS forests 2004 to 2007

	Visits over survey period	Survey period
Dornoch	119,000	2005-2006
Inverness¹¹	639,000	2006-2007
Fort Augustus¹²	268,000	2006-2007
Lochaber	559,000	2004-2005
Lorne	297,000	2005-2006
West Argyll	292,000	2004-2005
Moray	360,000	2005-2006
Aberdeenshire, of which	694,000	2004-2005
Buchan	789,000	2006-2007
Kincardine		
Tay	717,000	2005-2006
Cowal & Trossachs	471,000	2006-2007
Scottish Lowlands	938,000	2005-2006
Scottish Borders¹²	821,000	2004-2005
Ae	413,000	2006-2007
Galloway	812,000	2004-2005
Total	8.2 million	

¹¹ The pilot survey conducted in 2002 estimated 2.2 million annual visits to forests in Inverness Forest District. It is likely that three factors have contributed to the bulk of the difference between that estimate and the 639,000 visits estimated here; the more limited amount of fieldwork conducted during the pilot survey (4 months only); the basic calculations used to gross up the pilot survey results; the selection of different sites for each survey.

¹² In addition to data from this survey, data from other sources, including vehicle counters, have been used to refine the estimates for Fort Augustus and Scottish Borders.

FCS estimate that a further 150,000 to 200,000 visits are taken annually to events in their forests and have not been counted within the scope of the All Forests survey. For example, fieldwork was not undertaken during events such as car rallies, mountain bike competitions, and some seasonal events such as the Enchanted Forest event at Faskally forest in Tay Forest District.

In addition, as described in Appendix 1, survey fieldwork was only conducted during daylight hours. By using a number of vehicle counters spread across the FCS estate it is estimated that around 300,000 visits are made annually during darkness hours.

Combining these estimates provides an estimate of **8.7 million visits** to FCS forests per year.

Time of visits

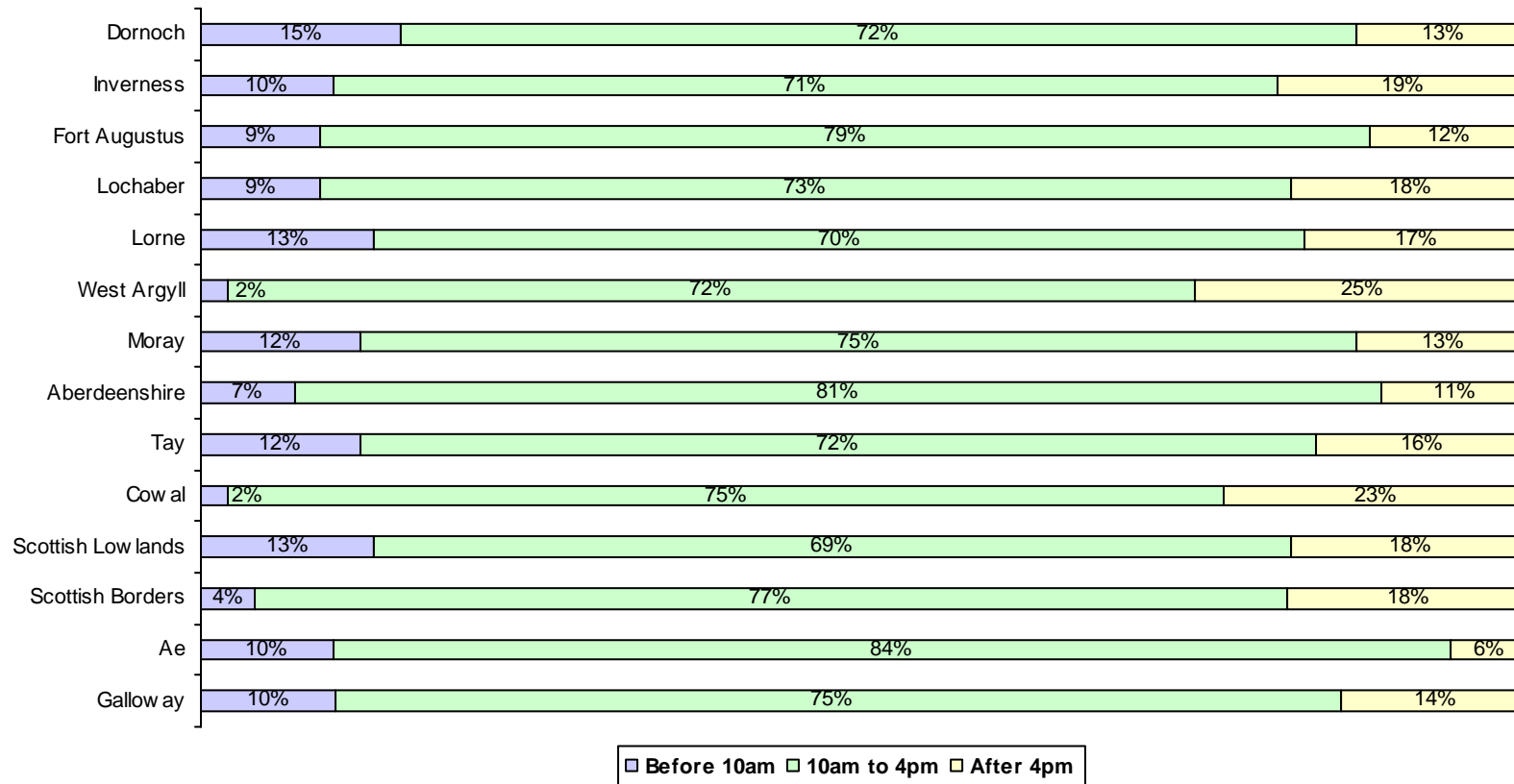
With counts undertaken during different times of day and different days of the week, it is possible to estimate total numbers of visits taken during a variety of time periods¹³.

As might be expected, in all of the Forest Districts the majority of visits took place during the six-hour period between 10am and 4pm (75% overall) while smaller proportions took place before 10am (9% overall) and after 4pm (16% overall). A particularly high proportion of visits were taken during the middle time period in the Ae (84%) and Aberdeenshire (81%) areas while relatively more visits were taken in the mornings, before 10am, in Dornoch (15%) and relatively more evening visits after 4pm were taken in West Argyll (25%) and Cowal & Trossachs (23%). Please note when interpreting these results that surveying took place within daylight hours only.

¹³ Note: estimates of times of visit for some of the forest districts have been revised from those included in Year 1 and Year 2 reports

Figure B-1 – Time of visit - FCS forests (%)

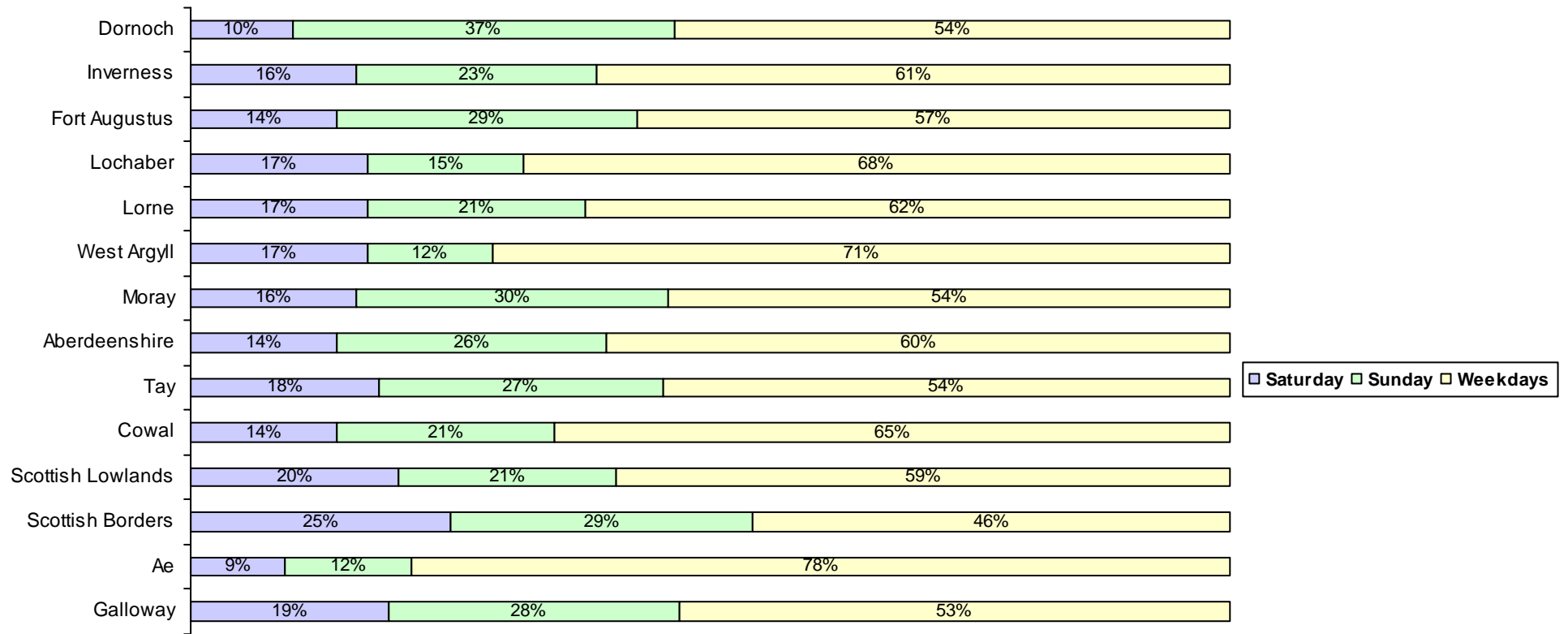
Base: Annual hours of daylight from 6.30am to sunset (4,135 hours)



By using a number of vehicle counters spread across the FCS estate it is estimated that around another 300,000 visits (around three to four per cent of all visits) are made annually during hours of darkness.

Around three in five visits to forests were estimated to have taken place on weekdays (59%), 17% were taken on Saturdays and 24% on Sundays. A comparison of the estimates for each district suggests that a higher proportion of visits taken in the Ae, West Argyll and Lochaber districts were on weekdays (78%, 71% and 68% respectively) while more visits were taken on the weekends in the Scottish Borders (54%).

Figure B-2 – Day of visit - FCS forests included in 2006/2007 survey (%)
Base: Annual hours of daylight from 6.30am to sunset (4,135 hours)



C. Visitor and visit characteristics

As well as counts being undertaken of visitors entering and leaving forests, some 2,694 interviews were undertaken with visitors to FCS forests. Each interview lasted approximately 10 minutes and used the questionnaire included in appendix 2.

With a total sample of 2,694, overall results on an un-weighted random sample would be accurate to +/- 1.9% at the 95% confidence interval. It should be noted that the differential weighting for time of day, blocks and districts means that the overall confidence intervals are much wider.

The following sections provide the results of this part of the survey with results weighted to reflect total visitor numbers.

Party composition

The average party size during visits to Scottish forests was 2.1 people with slightly less than half of respondents visiting on their own (42%). 37% of visits involved a party size of 2 people while just over a fifth of visits were taken by groups of 3 or more people (21%).

The average party size was slightly higher in the Cowal & Trossachs, Dornoch and Tay Forest Districts (2.5, 2.3 and 2.3 people respectively) but lowest in the Scottish Lowland district (1.7 people). Average party size was highest amongst visitors who were on their first visit (2.7), those who travelled more than 25 miles to reach the forest (2.6), those walking without a dog (2.6) and those who visited less often than once a week (2.5). Conversely, party sizes were smaller amongst those aged 60 or over (1.8), those who walked to the site (1.7), dog walkers (1.6) and those who visited the forest at least once a week (1.5).

17% of all parties contained children aged under 16. Visitors to Dornoch Forest District (28%) and Cowal & Trossachs Forest District (23%) were more likely than the average to be in a party containing children.

The table below illustrates the sex and age profile of respondents and their party members and, for comparison, the Scottish population profile†.

Table C-1 – Sex and age profile of all party members (%)

Base: All party members (5,541)

	All FCS visitors	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeenshire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Galloway	Population of Scotland*
Sex																
Male	54	51	57	51	46	42	48	47	52	50	52	56	65	57	62	48
Female	46	49	43	49	54	58	51	54	48	50	48	44	35	44	38	52
Age																
Under 5	4	6	3	3	1	2	7	7	6	3	5	6	4	5	2	5
5 to 10 years	7	15	4	7	5	5	8	6	9	6	6	7	6	6	7	7
11 to 15 years	5	3	5	4	4	4	5	5	4	5	6	4	6	4	7	6
16 to 24 years	6	5	8	13	9	3	4	2	3	4	7	6	7	5	7	11
25 to 34 years	14	9	16	12	11	9	14	13	14	13	11	15	28	14	9	14
35 to 44 years	20	20	17	13	19	22	26	22	23	16	20	19	22	23	19	15
45 to 59 years	26	21	32	27	28	30	28	28	25	27	26	26	17	24	32	19
60+ years	17	20	14	21	24	26	7	16	16	26	19	18	10	19	16	21
Base:	5,541	230	407	158	105	172	72	299	642	504	724	936	605	400	287	n/a

*Source: Census 2001

†Please note that not all visitors interviewed were from Scotland.

Just over half of visitors to FCS forests were male (54%) while 46% were female. The higher proportion of male visitors was particularly notable in the Scottish Borders (65%¹⁴).

In terms of age profile, just over two-fifths of all visitors were aged 45 or over (43%), while two in ten were between the ages of 35 and 44 (20%) and 17% were over the age of 60. A higher proportion of visitors to the Lorne, Tay and Lochaber Forest Districts were over the age of 45 (56%, 53% and 52% respectively).

As illustrated in the table, in comparison to the population of Scotland as a whole, visitors to FCS forests were more likely to be male (54% of FCS visitors compared to 48% of the Scottish population). Furthermore, visitors to forests were more likely than the Scottish population as a whole to be between the ages of 35 and 59 (46% and 34% respectively) but less likely to be aged between 16 and 24 (6% and 11% respectively) or 60 years or over (17% compared to 21%).

¹⁴ Please note that this figure is likely to be influenced by the high proportion of young male cyclists visiting Glentress Forest.

As table C-2 highlights, the overwhelming majority of visitors to forests in Scotland were white (99%). In terms of place of birth, just over two-thirds of visitors were Scottish (68%) while a quarter were English (25%). The Scottish Lowlands recorded the highest proportion of Scottish visitors (89%) while more visitors to Lorne Forest District were English (39%). 1% of visitors to FCS forests were of non-white ethnic origin. By comparison, the 2001 census recorded that 2% of the Scottish population were members of non-white ethnic groups.

Table C-2 Ethnicity (%)

Base: All respondents (2,694)

	All FCS visitors	Dor-noch	Inver-ness	Fort Augustus	Locha-ber	Lorne	West Argyll	Moray	Aber-deen-shire	Tay	Cowal	Scot-tish Low-lands	Scot-tish Bor-ders	Ae	Gall-oway	Census data+
Total White	99	100	100	99	98	96	100	99	100	99	99	100	100	100	100	98
White – Scottish	68	76	67	39	53	44	66	68	69	69	62	89	67	65	65	88
White – English++	25	20	26	34	37	39	34	25	21	23	28	8	27	32	23	7
White – other	6	2	5	26	8	2	-	7	6	5	8	3	4	4	10	3
Asian	1	-	-	-	-	-	-	-	*	-	-	-	-	-	-	2
Black	*	-	-	-	-	-	-	-	*	*	-	-	-	-	-	*
Other	*	-	-	1	-	-	-	-	-	-	-	-	-	-	-	*
<i>Base:</i>	2,694	98	208	79	51	94	32	156	314	218	285	564	268	189	138	

- nil respondents * fewer than 0.5% +Census data for Scotland, although not all respondents were Scottish

++'White – British' used in Census

Percentages may equal >100% due to rounding

Overall, 5% of visitors stated that they or a party member had a disability or special need. Amongst these visitors, 71% indicated that the disability related to mobility. By comparison, 34% of households in Scotland have at least one member with a long-standing illness, health problem or disability (Scottish Household Survey)¹⁵.

Table C-3 Disabilities and special needs (%)

Base: All respondents (2,694); Respondents with a disability (135)

	All FCS visitors	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeenshire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Aberdeenshire	Galloway
Groups containing members with disability or special need	5	9	6	10	2	9	3	9	2	6	7	6	3	4	5
Mobility	71	78	92	75	100	50	100	79	86	57	80	64	56	71	57
Hearing	11	11	8	-	-	13	-	14	14	7	10	6	33	-	14
Learning disability	5	-	-	-	-	13	-	-	28	-	-	3	-	-	14
Sight	8	-	-	-	100	13	-	-	14	7	-	-	22	14	-
Alzheimer's	1	-	-	-	-	-	-	-	-	7	-	-	-	14	-
Asthmatic	2	-	-	13	-	-	-	-	-	7	-	9	-	-	-
Arthritis	*	-	-	13	-	-	-	-	-	-	-	-	-	-	-
<i>Base:</i>	<i>2,694</i>	<i>98</i>	<i>208</i>	<i>79</i>	<i>51</i>	<i>94</i>	<i>32</i>	<i>156</i>	<i>314</i>	<i>218</i>	<i>285</i>	<i>564</i>	<i>268</i>	<i>189</i>	<i>138</i>

* less than 0.5% - nil respondents

¹⁵ It should be noted that the wording of the question regarding illness and disability in the All Forests survey was not identical to that used in the Scottish Household Survey so results are not directly comparable.

ACORN profile

The home postcode of respondents was used to undertake further profiling of the characteristics of UK residents who visited forests. The majority of respondents visiting from within the UK (89%) gave a valid postcode.

Every respondent who provided a valid postcode was assigned an 'ACORN' code. The ACORN classification was created by CACI Ltd using a cluster analysis of the 2001 Population Census, together with data from a number of other sources, to divide almost all postcodes into 56 'types'. These types can be aggregated into 17 'groups' (A to Q) and the groups into 5 broad 'categories'. By analysing significant social factors and consumer behaviour, it provides an in-depth understanding of the different types of consumers across the country. Addresses in postcodes within any 'type' will therefore tend to have a lot in common and can be given a label that describes the typical member of that 'type'. E.g. 'Mature couples, smaller detached homes'.

Figure C-1 overleaf shows the proportions of valid postcodes that fall into each group for visitors to FCS Forests overall and for comparison, the equivalent proportion of each group in the UK population as a whole. The table that follows (Table C-4) shows the proportion of valid postcodes within each Forest District that fall into each group.

Figure C-1 – ACORN groups (%)

Base: All respondents who provided a valid postcode (2,398)

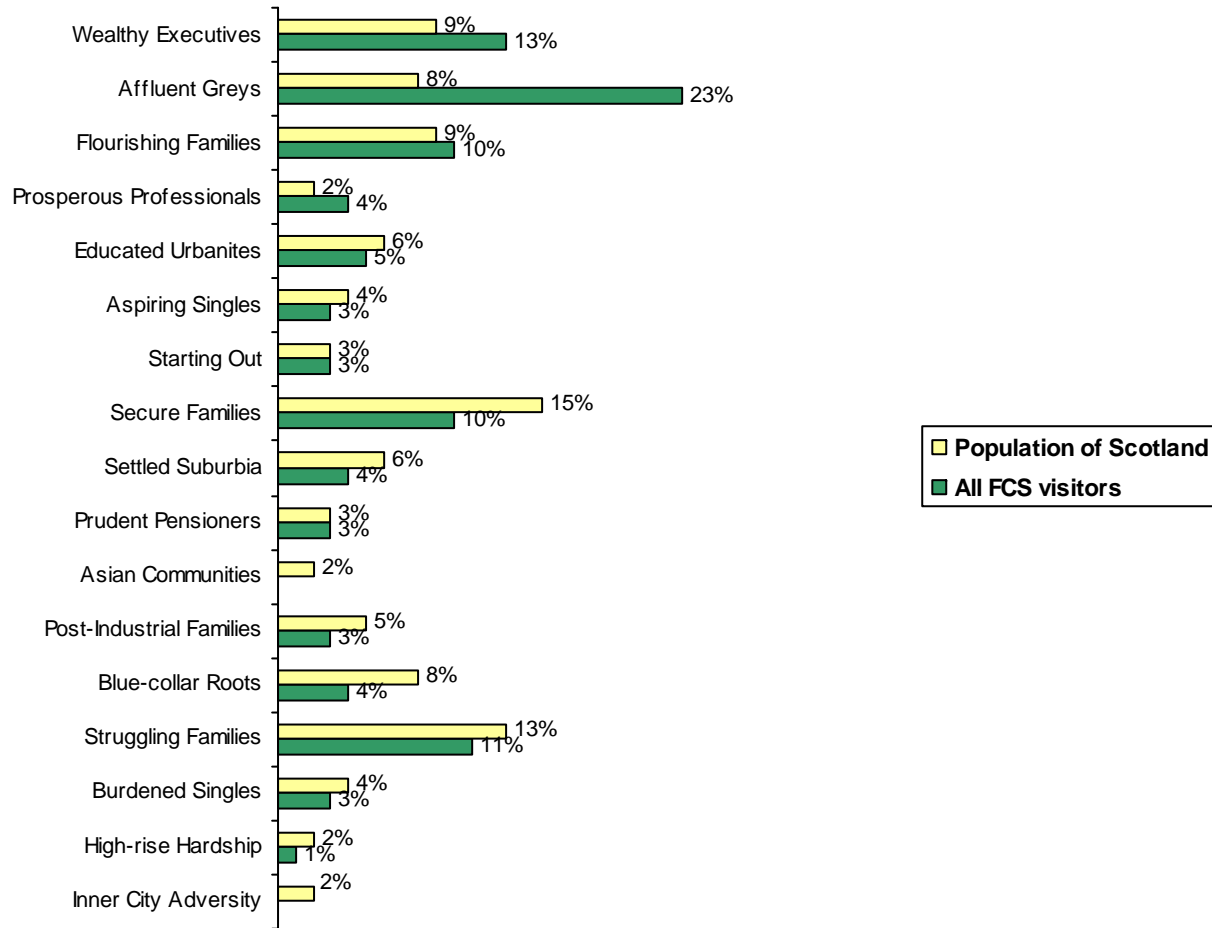


Table C-4 ACORN coded postcodes (%)

Base: All respondents who provided a valid postcode (2,398)

ACORN Group	All FCS visitors	Dor-noch	Inver-ness	Fort Aug-ustus	Locha-ber	Lorne	West Argyll	Moray	Aber-deen-shire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Gall-oway	UK Population
1. Affluent Achievers	46	51	53	42	51	44	35	48	50	38	36	20	32	42	37	25
1.A. Wealthy Executives	13	11	13	9	8	4	6	10	21	13	15	8	12	8	3	9
1.B Affluent Greys	23	33	28	24	33	30	13	26	17	19	12	4	13	29	30	8
1.C. Flourishing Families	10	7	12	9	10	10	16	12	12	6	9	8	7	5	4	9
2. Urban Prosperity	12	3	6	6	2	14	3	3	12	15	12	11	23	8	5	12
2.D Prosperous Professional	4	2	3	1	-	1	-	1	5	7	4	5	6	3	3	2
2.E. Educated Urbanites	5	1	2	4	-	10	3	-	5	5	5	3	13	3	1	6
2.F. Aspiring Singles	3	-	1	1	2	3	-	2	2	3	3	3	4	2	1	4
3. Comfortably Off	21	11	20	20	26	13	25	17	14	23	16	17	18	23	19	27
3.G. Starting Out	3	-	4	-	4	1	-	2	3	3	2	3	5	2	1	3
3.H. Secure Families	10	4	12	13	10	7	22	10	7	10	11	11	8	8	6	15
3.I. Settles Suburbia	4	4	2	4	8	3	-	2	2	6	1	1	2	10	7	6
3.J. Prudent Pensioners	3	3	2	3	4	2	3	3	2	4	2	2	3	3	5	3
4. Modest Means	6	3	2	-	4	4	9	7	3	5	3	10	8	4	7	14
4.K. Asian Communities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
4.L. Post Industrial Families	3	2	1	-	-	-	3	4	2	1	1	7	3	2	1	5
4.M. Blue Collar Roots	4	1	1	-	4	4	6	3	1	4	2	3	5	2	6	8
5. Hard Pressed	15	23	9	15	2	11	12	11	14	11	8	33	9	8	18	21
5.N. Struggling Families	11	16	8	11	2	7	9	10	9	6	5	22	7	5	15	13
5.O. Burdened Singles	3	6	1	4	-	2	3	1	4	3	2	8	1	2	3	4
5.P. High Rise Hardship	1	1	*	-	-	2	-	-	1	2	-	3	1	1	-	2
5.Q. Inner City Adversity	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2
Base:	2,398	90	198	66	43	82	27	134	294	201	217	520	243	163	120	n/a

-nil respondents

The table shows that compared to the UK population profile, FCS visitors were generally more likely to live in the most prosperous communities (group 1) but were less likely to live in low income communities (groups 4 and 5). However, in the Scottish Lowlands fewer visitors were in the most affluent group while a larger proportion were in the least affluent group (group 5).

Visitor origin

Visitors were asked to provide details of where they normally lived. Table C-5 overleaf shows that 85% of forest visitors lived in Scotland while one in ten lived in England (10%). A small number of visitors lived overseas (1%).

As would be expected, high proportions of visitors to each of the Forest Districts came from within the local area/region. The highest proportions of overseas visitors were recorded in Fort Augustus* (12%) and Lochaber* (6%).

* Caution: sample size less than 100 in Fort Augustus and Lochaber

Table C-5 Origin of visitors (%)

Base: All respondents (2,694)

	All FCS visitors	Dor-noch	Inver-ness	Fort Aug-ustus	Locha-ber	Lorne	West Argyll	Moray	Aber-deen-shire	Tay	Cowal	Scottish Low-lands	Scottish Bor-ders	Ae	Gall-oway
Scotland	85	94	87	71	69	66	78	94	95	83	64	98	83	65	93
Aberdeen	5	-	1	1	2	-	-	1	27	-	*	*	-	1	-
Aberdeenshire	12	5	2	-	2	1	-	1	60	1	-	1	3	-	-
Angus	*	1	*	-	-	-	-	1	1	3	-	*	*	-	-
Argyll & Bute	5	-	*	5	6	43	63	-	-	1	15	-	1	1	-
Clackmannanshire	1	-	-	-	-	-	-	-	-	1	-	7	-	-	-
Dumfries & Galloway	7	-	-	-	-	-	-	1	*	-	*	*	*	49	45
Dundee	1	-	-	1	2	1	-	1	-	9	*	-	*	-	1
East Ayrshire	1	-	-	1	-	-	-	-	-	-	1	-	*	1	9
East Dunbartonshire	*	-	-	-	-	-	-	-	-	-	*	1	*	-	-
East Lothian	*	-	-	-	-	1	-	-	1	-	-	*	1	-	-
East Renfrewshire	*	-	-	-	-	-	-	-	-	-	-	*	-	-	-
Edinburgh	3	-	*	1	4	2	-	-	1	3	3	1	17	-	-
Falkirk	4	1	-	-	2	-	-	-	-	1	2	34	1	-	-
Fife	6	-	1	1	4	-	-	1	-	23	*	30	2	-	1
Glasgow	2	2	*	-	-	3	6	1	-	1	8	4	2	3	1
Highland	11	74	73	54	45	3	-	1	1	1	1	-	*	1	-
Inverclyde	*	-	-	-	-	-	-	-	-	-	2	*	-	1	-
Midlothian	1	-	-	1	-	-	-	-	-	-	-	1	4	-	-
Moray	5	7	1	1	-	1	-	86	2	*	-	-	-	-	-
North Ayrshire	1	-	*	-	-	-	3	-	-	-	2	1	-	1	8
North Lanarkshire	*	-	*	-	-	-	-	-	-	*	1	2	*	1	-
Orkney	*	1	-	-	2	-	-	-	-	-	-	-	-	-	-
Perth & Kinross	4	1	1	1	-	2	-	-	-	33	1	1	1	1	1
Renfrewshire	*	1	-	-	-	-	3	-	-	-	1	*	*	-	-
Scottish Borders	5	-	1	-	-	-	-	-	-	1	-	1	40	4	1
Shetland Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Ayrshire	3	-	*	-	-	-	3	-	-	-	1	1	1	1	22
South Lanarkshire	1	-	-	-	-	2	-	-	-	1	2	2	2	1	1
Stirling	2	-	*	-	-	4	-	-	-	2	11	7	*	1	4
W. Dunbartonshire	*	-	-	-	-	2	-	-	-	-	-	*	*	-	-
West Lothian	1	-	-	-	-	-	-	1	2	*	1	2	4	-	-
Western Isles	*	-	-	-	-	-	-	1	-	-	-	*	-	-	-
England	10	2	6	14	25	28	22	3	1	14	12	1	16	13	5
Wales	*	1	-	-	-	1	-	3	-	-	-	-	-	-	1
N. Ireland	*	-	-	1	-	3	-	-	-	*	-	-	-	-	1
Overseas	1	2	*	12	6	4	-	-	-	2	2	1	1	-	1
Base:	2,694	98	208	79	51	94	32	156	314	218	285	564	268	189	138

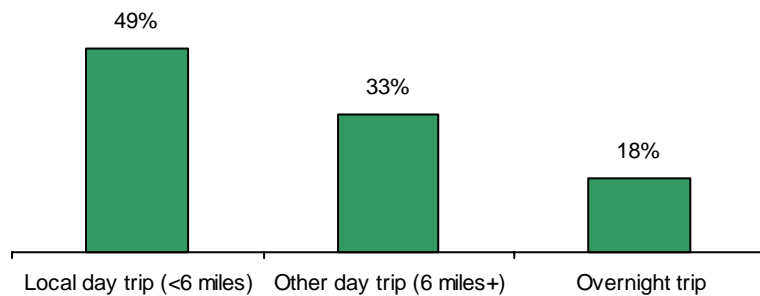
- nil respondents * fewer than 0.5% Note: Percentages above are based on all respondents, including those who did not state place of origin while percentages in individual year reports are based on only those providing a response so may vary slightly.

Type of trip

As Figure C-2 below illustrates, almost half of visitors to FCS forests were on a local day trip of less than six miles from home (49%), while a further 33% were on a day trip involving a longer journey from home. 18% of visitors visited a FCS forest while on an overnight trip away from home.

Figure C-2 – Whether on a day trip or staying away from home (%)

Base: All respondents (2,694)



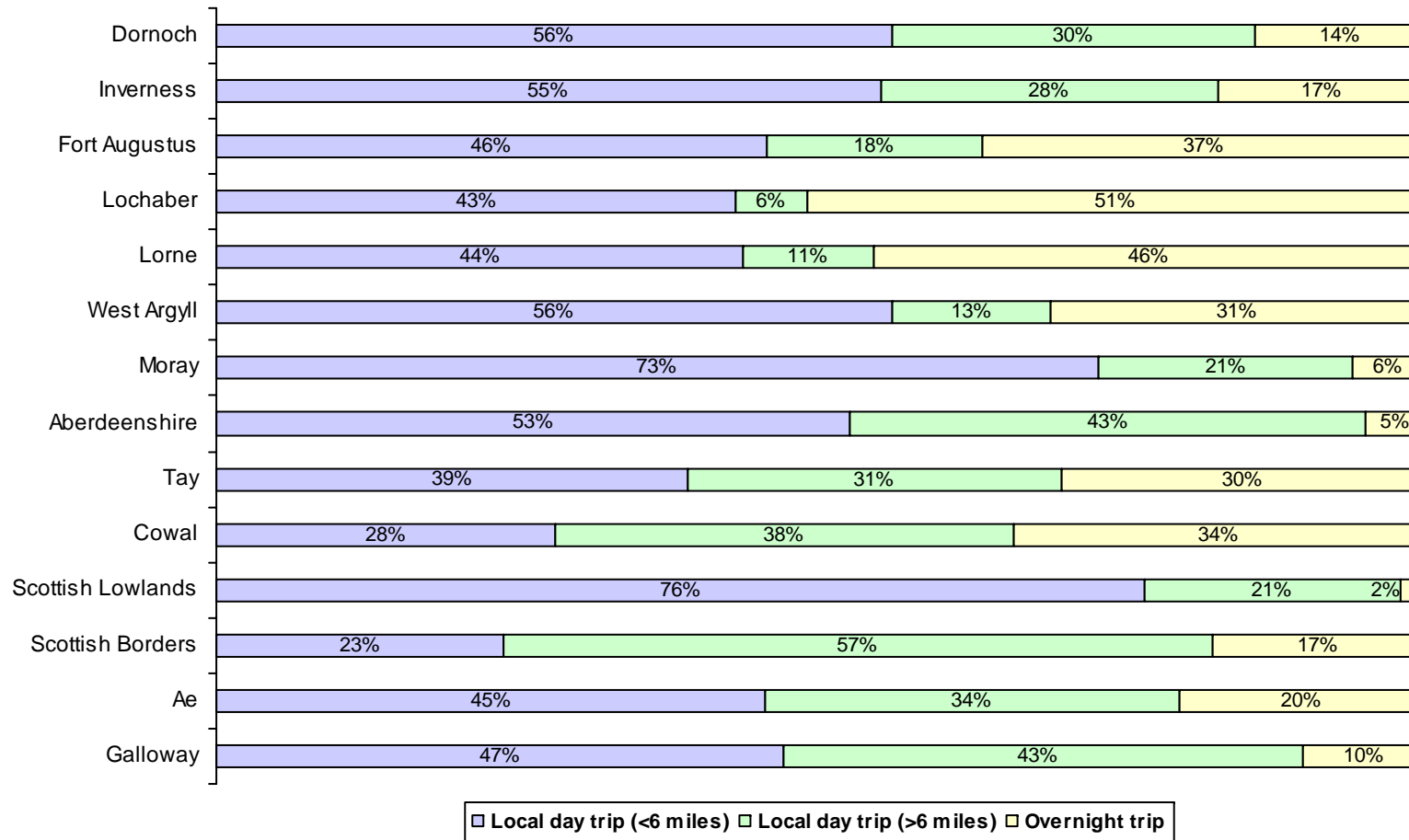
Respondents interviewed in the Scottish Lowlands, Moray and Aberdeenshire Forest Districts were most likely to be on a day trip (98%, 94% and 94% respectively), while visitors to Lochaber, Lorne* and the Cowal & Trossachs areas were most likely to be on an overnight holiday or short break (51%, 46% and 34% respectively). Those on their first visit (60%), those who travelled more than 25 miles (27%), those who undertook walking other than with a dog (27%) and those who cycled while in the forest (23%) were also more likely to be on an overnight trip from home.

Figure C-3 overleaf shows the proportions on a day trip and those staying overnight by individual Forest District.

* Caution: sample size less than 100 in Lochaber and Lorne

Figure C-3 – Whether on a day trip or staying away from home by Forest District(%)

Base: All respondents (2,694)



Overnight visits

Visitors who were staying away from home were asked further questions relating to their trip.

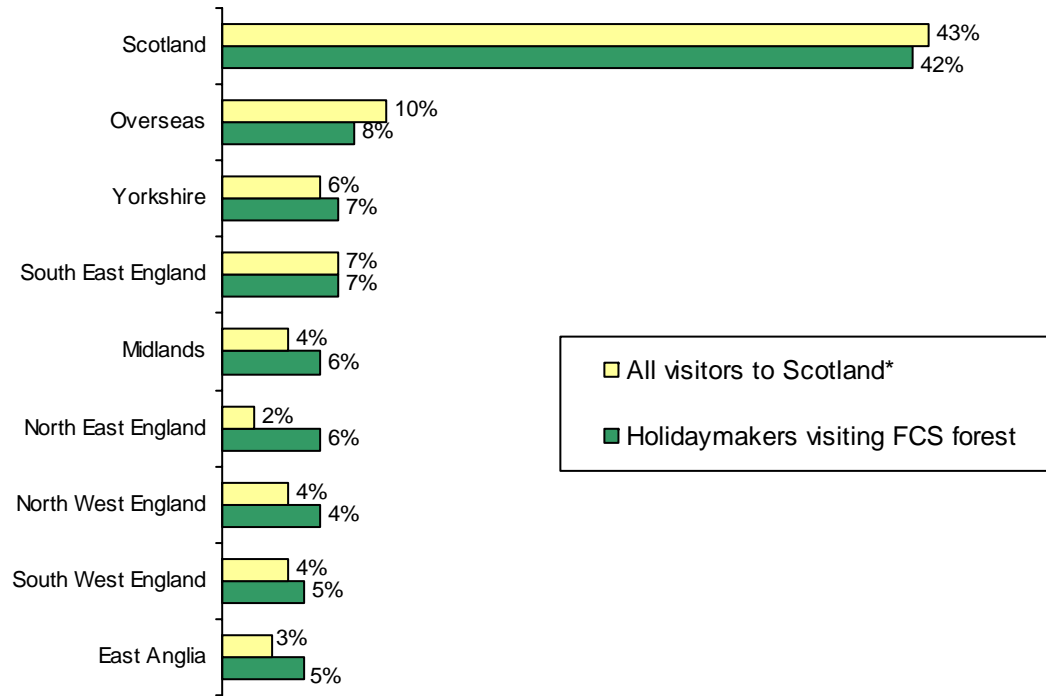
Place of residence

Figure C-4 overleaf compares the place of residence of tourists visiting FCS forests while on a holiday or short break with the profile of all tourists to Scotland. The main UK areas of origin of visitors to forests were Scotland (42%), Yorkshire (7%), South East England (7%), the Midlands and the North East (6% each). Overseas visitors accounted for 8% of tourists visiting forest with places of origin including Germany, France, Italy, Spain, Belgium, Sweden Poland, Australia, Israel, Canada and the USA.

The origin profile of all tourist trips taken in Scotland is similar to that recorded in FCS forests.

Figure C-4 –Place of residence of overnight visitors (%)

Base: All respondents on overnight trips from home (458)



*Source: Tourism in Scotland 2003, VisitScotland

Accommodation used

Visitors who were staying away from home were asked to indicate the type of accommodation they had stayed in. Table C-6 shows a comparison of forest visitors with the overall profile of visitors to Scotland.

Overall, just over three in ten visitors to forests stayed in a tent, caravan or cabin (32%) while around a fifth stayed in a hotel, guest house or bed and breakfast (22%) or used self-catering accommodation (20%) and a sixth of visitors stayed at the home of a friend or relative (16%). The use of a tent, caravan or cabin was highest amongst visitors to Dornoch (50%), the Scottish Borders (41%) and Inverness (37%).

By way of comparison, visitors to Scotland generally were more likely than forest visitors to stay in the home of a friend or relative or to use a hotel, guesthouse or bed and breakfast but were less likely to camp, stay in a caravan or use other self catering accommodation.

Table C-6 – Overnight accommodation used (%)

Base: All respondents on overnight trip from home (458)

	All FCS visitors	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeenshire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Galloway	All visitors to Scotland*
Tent/ Caravan/ Cabin	32	50	37	10	35	19	30	30	36	30	32	-	41	34	36	5
Hotel, Guest House or B&B	22	21	23	34	20	26	-	10	12	26	30	27	24	8	21	44
Self catering accommodation	20	7	14	31	23	35	40	10	6	14	18	50	11	26	7	10
Home of friend or relative	16	21	11	17	12	-	20	50	46	15	15	7	15	32	21	35
Youth Hostel/ Outdoor Centre	4	-	11	7	8	9	-	-	-	-	1	-	-	-	7	4
Time share/ Holiday home	2	-	3	-	-	2	-	-	-	9	1	-	-	-	-	n/a
Motor/mobile home	2	-	-	-	4	2	-	-	-	6	2	-	2	-	-	n/a
<i>Base:</i>	<i>458</i>	<i>14</i>	<i>35</i>	<i>29</i>	<i>26</i>	<i>43</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>66</i>	<i>98</i>	<i>14</i>	<i>46</i>	<i>38</i>	<i>14</i>	<i>n/a</i>

* Source: Tourism in Scotland 2006, VisitScotland Note: small sample sizes at Forest District level

Length of stay

Visitors who were on an overnight trip away from home were asked how many nights in total they were away and how many nights were spent in Scotland. As illustrated in Table C-7 below, an average of 9.0 nights were spent away from home, of which, as shown in Table C-8 overleaf, an average of 8.2 nights were spent in Scotland. Just over a third of visitors were away from home on a short break of 1 to 3 nights (34%), while half stated that they were away from home for more than 6 nights (50%).

The average number of nights away from home was higher amongst those visiting between June and August (12.0) and those visiting the Galloway, Inverness and Tay Forest Districts (13.0, 12.1 and 10.9 nights respectively).

Table C-7 – Total duration of overnight trips (%)

Base: All respondents on overnight trip from home (458)

	All nights away from home	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeenshire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Galloway
1 night	8	14	11	3	4	5	10	10	6	6	11	29	22	5	-
2 nights	16	14	17	7	15	5	20	20	15	17	19	7	17	21	21
3 nights	10	21	6	7	8	9	10	10	6	5	14	14	13	18	21
4 to 6 nights	14	14	14	10	8	12	10	20	32	18	15	-	17	18	14
7 to 14 nights	37	14	31	48	38	58	50	20	29	44	30	43	26	34	21
15+ nights	13	21	20	17	27	12	-	-	6	11	10	7	4	3	21
Average:	9.0	8.1	12.1	9.3	9.7	9.7	5.1	4.3	6.3	10.9	7.5	9.4	6.3	4.9	13.0
<i>Base:</i>	<i>458</i>	<i>14</i>	<i>35</i>	<i>29</i>	<i>26</i>	<i>43</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>66</i>	<i>98</i>	<i>14</i>	<i>46</i>	<i>38</i>	<i>14</i>

Note: small sample sizes at Forest District level

Table C-8 – Number of nights away from home in Scotland (%)

Base: All respondents on overnight trip from home (458)

	All nights in Scotland	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeenshire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Galloway
1 night	9	14	11	3	4	5	10	10	6	6	12	29	24	5	-
2 nights	17	14	20	7	15	7	20	20	15	17	21	7	17	21	21
3 nights	10	21	6	7	8	7	10	10	15	5	11	14	11	18	21
4 to 6 nights	15	14	14	14	8	12	20	20	32	21	15	-	15	18	14
7 to 14 nights	38	14	31	52	42	63	40	20	21	42	33	43	26	34	21
15+ nights	11	21	17	10	23	7	-	-	6	9	7	7	4	3	21
Average:	8.2	8.0	11.0	8.6	9.5	9.3	4.9	4.3	5.5	4.7	6.9	9.4	6.0	4.9	13.9
<i>Base:</i>	<i>458</i>	<i>14</i>	<i>35</i>	<i>29</i>	<i>26</i>	<i>43</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>66</i>	<i>98</i>	<i>14</i>	<i>46</i>	<i>38</i>	<i>14</i>

- nil respondents Note: small sample sizes at Forest District level

By comparison, the average length of stay amongst all holiday visitors to Scotland was 4.6 nights during 2006 (Source: Tourism in Scotland 2006, VisitScotland).

Visits to forests

Visitors on overnight trips were also asked to state the total number of visits they had taken to forests during their holiday or short break (including their current forest visit). Overall, an average of 4.7 visits were taken to forests, with just over half of visitors indicating that they had made between 1 and 3 visits (54%). Just over a third of visitors on an overnight trip had made between 4 and 10 visits to forests (36%) during their trip.

Table C-9 – Number of visits taken to forests, including current trip (%)

Base: All respondents on overnight trip from home (458)

	All holiday-makers visiting FCS forests	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeenshire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Galloway
1 visit	23	50	23	17	8	26	30	10	23	21	32	29	28	34	29
2 to 3 visits	31	29	34	14	19	28	30	50	26	32	35	50	48	45	14
4 to 10 visits	36	14	34	59	58	40	40	10	32	33	26	14	17	21	43
More than 10 visits	9	7	9	3	12	5	-	10	12	14	6	-	7	-	14
Average:	4.7	3.6	5.7	5.0	5.8	3.8	3.5	5.3	4.8	5.3	4.0	2.2	3.2	2.4	7.4
<i>Base:</i>	458	14	35	29	26	43	10	10	15	66	98	14	46	38	14

- nil respondents Note: small sample sizes at Forest District level

When analysed by Forest District*, the average number of visits to forests and woods was highest in Galloway (7.4), Lochaber (5.8) and Inverness (5.7). This corresponds with the higher than average length of stay by those visiting these Forest Districts.

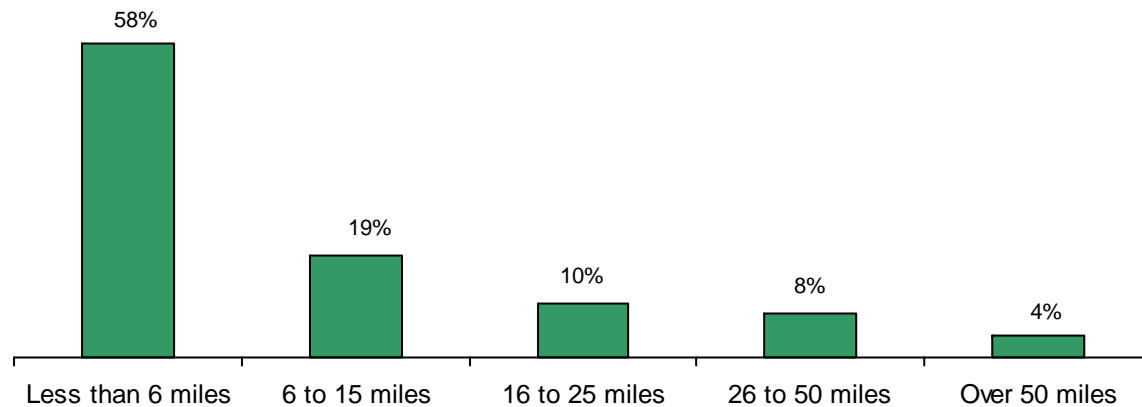
Travel to the forest

Distance travelled

Visitors were asked to indicate how far they had travelled to the forest, either from their home or the holiday accommodation they had used the previous night.

Figure C-5 – Distance travelled to reach forest (%)

Base: All respondents (2,694)



The largest proportions of visitors had travelled the shortest distances with 58% travelling under 6 miles and 19% travelling between 6 and 15 miles. Distances travelled to reach forests varied between districts with the largest proportion of local users (i.e. travelling under 6 miles from home or holiday accommodation) recorded in the Scottish Lowlands and Moray (77% each). Conversely, 51% of visitors to the Scottish Borders travelled for more than 16 miles to visit a forest in this district. In the Scottish Borders the larger proportion of visitors travelling further

was related to the large number of visitors who were taking part in mountain biking at Glentress (across the forest estate as a whole 60% of mountain bikers travelled more than 15 miles to get to the forest they visited).

Visitors who walked to the forest (98%), those who visited at least once a week (84%), dog walkers (75%) and those aged 60 or over (71%) were more likely to have travelled less than 6 miles to reach the forest. Those most likely to have travelled more than 15 miles included those who took part in cycling or mountain biking (60%), those on their first visit (47%), those aged 34 or under (36%) and men (25%).

Transport used

As Table C-10 illustrates, just under four-fifths of visitors travelled to the forest by car (78%), 18% walked to the forest while much smaller proportions used other types of transport. Less than 1% of all visitors used public transport to reach the forest.

Table C-10 Mode of transport used to reach forest (%)

Base: All respondents (2,694)

	All FCS visitors	Dor-noch	Inver-ness	Fort Aug-ustus	Locha-ber	Lorne	West Argyll	Moray	Aber-deen-shire	Tay	Cowal	Scot-tish Low-lands	Scot-tish Bor-ders	Ae	Gall-oway
Car/ van	78	82	70	66	73	62	59	87	90	86	74	57	84	88	84
Walked all the way	18	13	25	29	14	37	41	8	7	9	20	37	15	10	13
Bicycle	2	3	1	1	6	1	-	3	1	1	2	3	1	1	1
Motorhome	1	-	-	3	6	-	-	-	-	2	1	-	*	-	1
Minibus/ coach	1	-	*	-	-	-	-	1	1	*	1	*	*	1	1
Public transport	*	-	-	-	2	-	-	-	-	-	2	1	-	-	-
Horse	*	-	1	-	-	-	-	1	-	*	-	1	-	-	-
Running	*	1	1	-	-	-	-	-	-	-	-	1	-	-	-
Motorbike	*	-	-	-	-	-	-	-	-	-	*	-	-	1	-
Base:	2,694	98	208	79	51	94	32	156	314	218	285	564	268	189	138

* fewer than 0.5% - nil respondents

Those more likely than the average to travel by car included those visiting the Aberdeenshire Forest District (90%), as well as those who took part in cycling or mountain biking (86%) and those on their first visit or who visited less than once a week (82%).

Those visiting the West Argyll*, Lorne and Scottish Lowlands districts and visitors who visited at least once a week were more likely to have walked to the forest (41%, 37%, 37% and 29% respectively).

Frequency of visits

It must be remembered that the sampling frame is **visits** not **visitors**. Those who visit more frequently were more likely to be included in the sample. So the results quoted in this section are not representative of visitors.

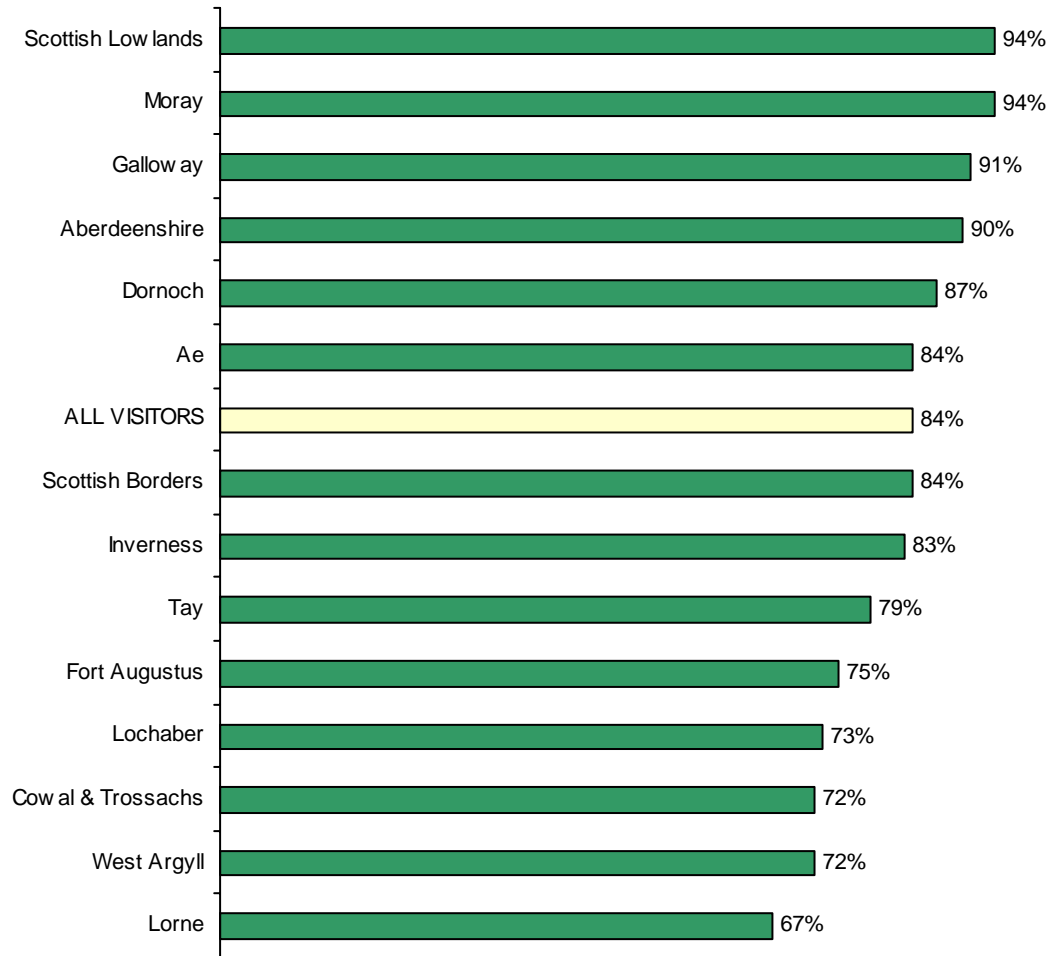
Overall, 84% of respondents had visited the particular forest they were interviewed in at least once before. However, as the chart overleaf shows, the proportion of repeat visitors varied by Forest District. Visitors to the Scottish Lowlands and Moray were the most likely to be on a repeat visit (94% each). Conversely, Lorne, West Argyll* and Cowal & Trossachs were the districts with the highest proportions of first time visitors (33%, 28% and 28% respectively).

Also, day trippers, visitors aged 60 or over, those who walked to the forest and those who took part in dog walking were more likely than other visitors to be on a repeat visit (92%, 90%, 91% and 94% respectively).

*Caution: sample size less than 100

Figure C-6 –Proportions of repeat visitors (%)

Base: All respondents (2,694)



Repeat visitors were asked to indicate how often they visited the forest. The table overleaf shows the levels of frequency of visits and an estimate of the average number of visits made per year based on these responses.

On the whole, 20% of visitors went to the forest at least once a day, with 7% stating that they visited more than once a day. Most commonly visitors went to the forest 1 to 3 times a week (25%).

The following estimated numbers of visits taken per visitor per year have been applied to each of the possible responses:

- Visit more than once a day = 365 visits per year
- Visit once a day = 350 visits per year
- Visit 1 to 3 times a week = 100 visits per year
- Visit 1 to 3 times a month = 25 visits per year
- Visit 1 to 3 times a year = 2 visits per year
- Less often/ first visit = 1 visit per year

It can therefore be estimated that, across all of the Forest Districts, visitors typically took around 99 visits to the forest they were interviewed at each year. The highest average number of visits per year were recorded in the Scottish Lowlands Forest District (163 visits) while the average number was lowest in Cowal & Trossachs (59 visits).

Table C-11 Frequency of visits to forest (%)

Base: All respondents (2,694)

	All FCS visitors	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeenshire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Galloway
More than once a day	7	6	10	4	4	5	16	11	3	3	3	16	3	4	9
Once a day	13	11	15	8	12	15	13	17	9	13	9	20	5	16	17
1 to 3 times a week	25	30	24	27	20	24	22	35	30	19	12	34	24	25	19
1 to 3 times a month	17	19	17	13	6	4	16	17	20	17	14	15	30	16	18
1 to 3 times a year	17	13	12	13	14	11	6	10	24	22	24	7	18	18	24
Less often	5	5	5	7	12	7	-	4	4	5	11	3	3	5	4
On first visit ever	16	13	17	25	27	33	28	6	10	21	28	6	16	16	9
Average visits per year:	99	95	118	75	77	96	128	138	80	80	59	163	57	98	116
<i>Base:</i>	<i>2,694</i>	<i>98</i>	<i>208</i>	<i>79</i>	<i>51</i>	<i>94</i>	<i>32</i>	<i>156</i>	<i>314</i>	<i>218</i>	<i>285</i>	<i>564</i>	<i>268</i>	<i>189</i>	<i>138</i>

- nil respondents

Table C-12 overleaf compares the key characteristics of visitors with different frequencies of visit with the profile of all adult visitors. This comparison illustrates that the most frequent users (visit at least once a week) were more likely than other users to be older, to live locally, to take part in dog walking and/or to stay in the forest for the shortest duration. Conversely, first time visitors were more likely to be on an overnight trip and spent the longest duration in the forest.

Table C-12 – Profile of users by frequency of visits to forest (%)

Base: All respondents (2,964)/ Visit at least once a week (1,252)/ Visit less often (1,020)/ First visit (409)

	All respondents*	Visit at least once a week	Visit less often	On first visit
Sex				
Male	59	55	63	61
Female	41	45	37	39
Age				
16-34	20	14	23	14
35-59	59	59	58	62
60+	21	27	19	14
Type of trip				
Local day trip (< 6 miles)	49	83	29	4
Other day trip (6 miles+)	33	15	51	36
Overnight trip	18	2	20	60
Activity				
Dog walking	50	75	35	20
Other walking	29	12	39	51
Cycling/ MTB	11	6	17	15
Average duration of visit				
	1hr 23 min	1hr 1min	1hr 39min	1hr 49min
<i>Base:</i>	<i>2,964</i>	<i>1,252</i>	<i>1,020</i>	<i>409</i>

*Please note that data in table above are based upon respondent profiles and not full party composition data (as shown in Table C-1 and page iv of Executive Summary).

Duration of visit

Overall, the average length of visit to forests was 1 hour and 23 minutes. Just under half of visitors spent between 30 minutes and 1 hour at the forest (46%), 13% stayed less than 30 minutes and 34% spent between 1 and 3 hours. The remaining 7% stayed for a longer duration.

The average length varied between the different Forest Districts. Dornoch and Inverness had the shortest average visits times at 59 minutes while the longest average visits were recorded for the Scottish Borders (2 hours) and Cowal & Trossachs (1 hour and 49 minutes).

Table C-13 Amount of time spent in forest (%)

Base: All respondents (2,694)

	All FCS visitors	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeenshire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Galloway
Less than 30 minutes	13	8	26	16	31	9	13	8	11	9	8	18	8	8	7
30 minutes to 1 hour	46	69	49	51	37	54	47	65	52	41	41	48	29	32	49
Over 1 hour to 2 hours	24	17	17	20	16	24	28	20	26	31	23	28	27	29	23
Over 2 hours to 3 hours	10	3	5	8	10	7	6	6	7	10	13	4	20	24	9
Over 3 hours to 4 hours	4	1	2	3	4	1	3	1	3	3	6	2	8	4	5
Over 4 hours	3	1	1	3	2	4	3	-	1	6	8	1	7	4	4
Average duration of visit:	1 hr 23min	59min	59min	1hr 12min	1hr 9min	1hr 26min	1hr 20min	1hr 3min	1hr 13min	1hr 36min	1hr 49min	1hr 8min	2hrs	1hr 41min	1hr 31min
<i>Base:</i>	<i>2,694</i>	<i>98</i>	<i>208</i>	<i>79</i>	<i>51</i>	<i>94</i>	<i>32</i>	<i>156</i>	<i>314</i>	<i>218</i>	<i>285</i>	<i>564</i>	<i>268</i>	<i>189</i>	<i>138</i>

- nil respondents

On average, visitors who took part in cycling or mountain biking and those who travelled more than 25 miles to the forest spent longer on site (2 hours 16 minutes and 2 hours 10 minutes respectively). Conversely, shorter than average stays were recorded for those who walked to the site (59 minutes), those who took part in dog walking (58 minutes) and those who travelled less than 6 miles to the site (1 hr 3min).

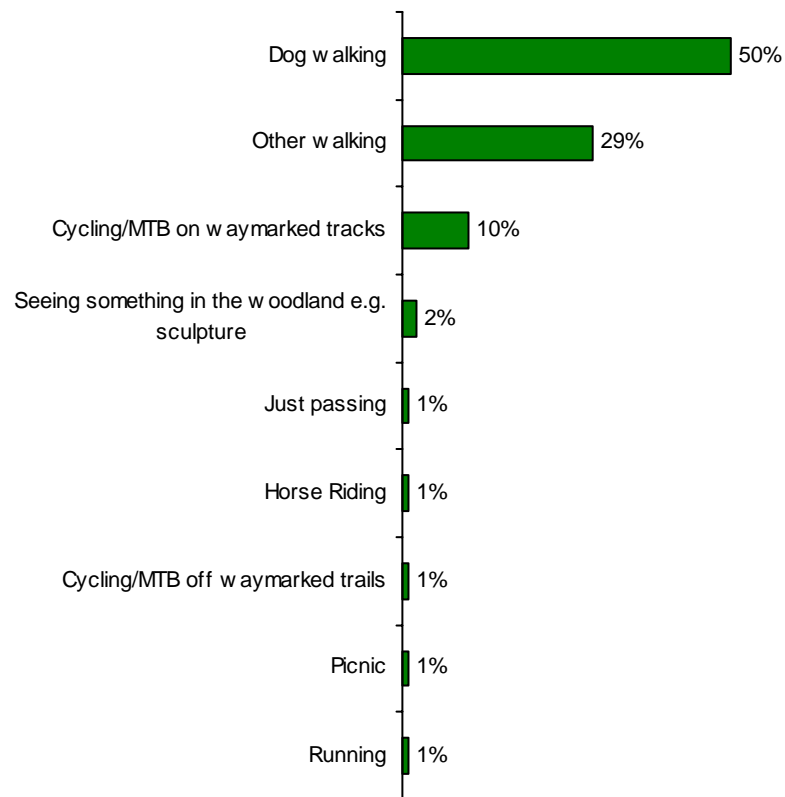
It is also notable that, on average, men stayed longer in the forest than women (1 hour 30 minutes and 1 hour 14 minutes respectively), a reflection of the larger proportion of males taking part in cycling or mountain biking. Similarly, younger visitors aged under 35 generally stayed longer in the forest than those aged 60 or over (an average of 1 hour and 35 minutes compared to 1 hour and 16 minutes).

Activities undertaken in forest

The chart below illustrates the main activities undertaken by visitors to FCS forests. The most frequently undertaken activities overall were dog walking (50%), other walking (29%) and cycling/ mountain biking on waymarked tracks (10%).

Figure C-7 – Activities undertaken in the forest (%)

Base: All respondents (2,694)



Levels of participation in each of the activities varied between the districts. The highest proportion of dog walkers were recorded in Moray and Galloway (70% and 62%), while more visitors were walking without a dog in Lorne* (39%). Cycling or mountain biking on waymarked tracks was most frequently undertaken in the Scottish Borders (47%) and Inverness (24%) Forest Districts.¹⁶

In terms of individual forest blocks (only taking account of those where at least 30 interviews were undertaken), large proportions of visitors took part in dog walking at Heathhall in Ae (92%), Barrhill in Galloway (89%), Culloden Muir (87%) and Craig Phadraig (83%) in Inverness, and Roseisle in Moray (78%) while more visitors took part in walking without a dog at Cruach Tairbet (85%), Cruach Benmore (52%) and Callendar Crags (44%) in Cowal, Bennachie in Buchan (51%) and Carrick in Galloway (50%). The majority of visitors took part in mountain biking or cycling in Learnie in Inverness (88%), Glentress in the Scottish Borders (66%) and Carron Valley in the Scottish Lowlands (51%).

Amongst the different respondent groups, female visitors and those aged 60 or over were more likely to have taken part in dog walking (61% and 60% respectively). Those on an overnight stay were more likely to have taken part in walking without a dog (42%), while those aged 34 or under were most likely to have undertaken cycling or mountain biking during their visit (25%).

Table C-14 overleaf compares the key characteristics of the main activity groups with the profile of all adult visitors. Compared to the profile of all visitors, dog walkers were more likely to be female (50%) and on a local day trip of less than 6 miles (69%) while those who walked without a dog were more likely to be male (64%) and on a day trip of more than six miles (40%). The majority of cyclists/ mountain bikers were male (86%) and a larger than average proportion were on a day trip of more than 6 miles (63%). Furthermore, over two-fifths of cyclists were between the ages of 16 and 34 (45%). Dog walkers spent the least time in the forest (58 mins) while those who took part in cycling or mountain biking spent a little over 2 hours on site on average (2hrs 16 mins).

* Caution: sample size less than 100

¹⁶ Due to the inclusion of the Glentress (Scottish Borders) and Learnie Red Rocks (Inverness) sites in the survey, both with high frequencies of use by mountain bikers, it should be noted that these results may not be representative of these Forest Districts overall.

Table C-14 – Profile of users by activity (%)

Base: All respondents (2,694)/ Dog walkers (1,319)/ Other walkers (766)/ Cyclists (315)

	All visitors*	Dog walking	Other walking	Cycling/ mountain biking
Sex				
Male	59	50	64	86
Female	41	50	36	14
Age				
16-34	20	15	16	45
35-59	59	59	61	53
60+	21	26	23	3
Type of trip				
Local day trip (< 6 miles)	49	69	32	14
Other day trip (6 miles+)	33	21	40	63
Overnight trip	18	11	27	23
Average duration of visit	1hr 23 mins	58 mins	1hr 45 mins	2hrs 16 mins
<i>Base:</i>	<i>2,964</i>	<i>1,319</i>	<i>766</i>	<i>315</i>

*Please note that data in table above are based upon respondent profiles and not full party composition data (as shown in Table C-1 and page ii of Executive Summary).

Improvements to forest

When visitors were asked what one thing, if anything, could be done to improve the forest they were visiting, just under two-thirds of visitors suggested any types of improvement (64%) while the remaining 36% of visitors stated that they could not think of anything or stated that no improvements were needed.

As the table overleaf shows, the most frequently asked for suggestions related to improving signposting, paths and toilets, and reducing the amount of dog dirt in the forest. A higher than average proportion of visitors mentioned signposting in the Lochaber* (22%) and Lorne* Forest Districts (15%) while improvements to paths were more likely to be mentioned in the Scottish Lowlands (13%).

*Caution: sample size less than 100

Table C-15 One thing would like to improve about this woodland (%)

Base: All respondents (2,694)

	All FCS visitors	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeenshire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Galloway
More/ better signposting	10	11	10	5	22	15	9	6	11	9	14	6	5	6	8
More/ better paths	7	11	9	9	4	5	6	4	7	4	7	13	9	7	6
More/ better toilets	4	3	4	3	4	2	-	1	5	7	2	2	3	3	6
Less/clean up dog dirt	3	6	1	-	-	2	-	16	3	7	2	2	-	7	-
More/better litter bins	3	4	2	5	2	3	3	2	2	6	5	3	2	2	1
Better maintenance of the car park	3	2	3	-	2	9	9	3	3	2	2	4	2	1	4
More/ better seating	2	3	3	8	6	5	-	5	4	6	4	3	2	1	1
Clean up litter	2	-	3	1	-	1	3	3	1	4	1	5	*	4	2
Provide more facilities	2	1	3	1	2	-	3	1	1	5	1	2	5	5	-
Stop/ reduce motorcycle use	2	1	3	-	2	2	-	8	-	*	*	4	1	1	-
Tidy up walking paths	2	3	3	4	2	-	-	3	2	-	1	5	1	1	2
More/ better parking	2	2	2	-	4	1	-	1	1	2	2	2	1	1	2
Improve/ more difficult trails	1	3	6	1	-	-	-	1	*	*	*	2	-	-	-
Remove cut down trees from paths	1	3	2	3	-	2	-	1	2	2	1	2	-	1	-
Make paths wider/cut back foliage	1	-	4	-	-	-	-	-	1	-	*	-	-	2	-
Segregate cyclists/ horse riders from walkers	1	-	*	-	-	-	-	-	1	-	*	-	-	4	-
Cut down some trees	1	3	1	5	2	3	6	2	*	1	*	1	*	2	2
More variety of trees	1	3	*	-	-	1	-	-	1	1	2	1	3	1	3
Provide maps/ place to buy maps	1	-	1	3	2	1	-	1	1	1	1	1	1	-	4
More cycle tracks	1	1	*	-	-	1	-	1	-	-	-	1	5	2	1
Play area for children	*	-	*	-	-	-	-	1	1	*	1	*	*	1	-
Stop fly tipping	*	1	*	-	-	-	-	-	*	-	1	1	*	1	1
Enforce dogs on leads	*	-	-	5	-	-	-	-	-	-	1	-	-	1	-
Nothing/ fine as it is/ don't know	36	26	26	29	33	36	34	34	37	35	34	26	44	37	34
Base:	2,694	98	208	79	51	94	32	156	314	218	285	564	268	189	138

- nil respondents * fewer than 0.5%

A full list of the suggestions provided at each of the sites included in the survey is available separately.

Influence of forest

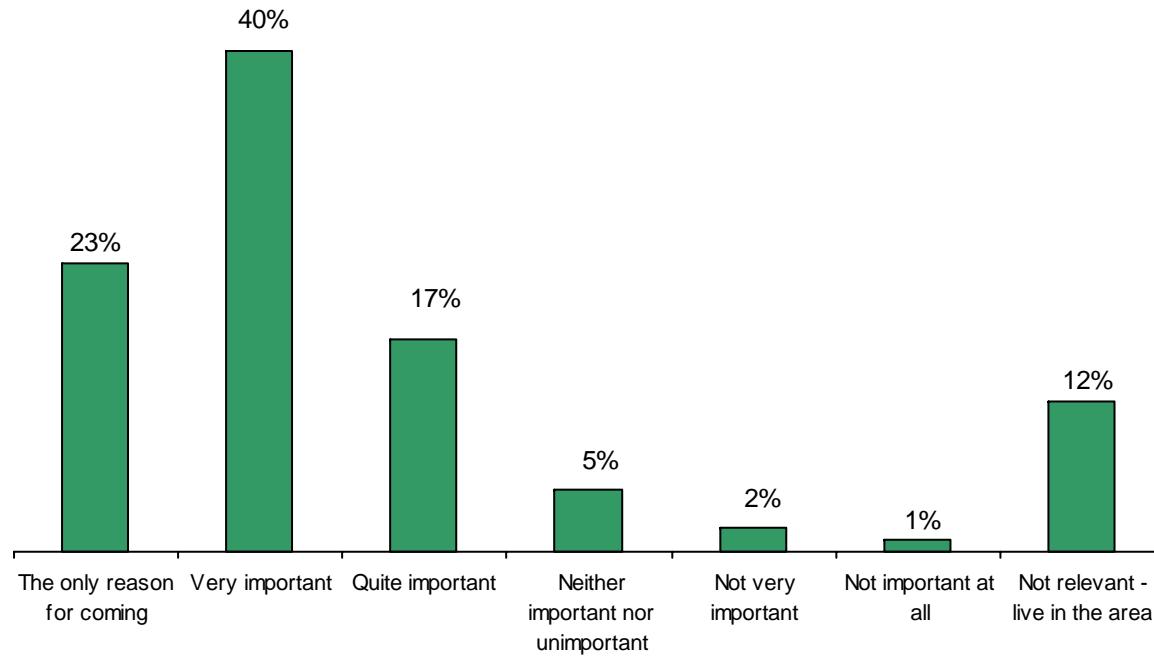
Visitors were asked to indicate how important the presence of the forest they were visiting and its facilities had been in their decision to visit the area for their day out/ while on holiday.

As Figure C-8 illustrates, just 1% of all visitors stated that the forest was 'not important at all' and 12% stated that the forest was 'not relevant' because they lived in the local area. However, almost a quarter indicated that the forest was 'the only reason' (23%), while 40% stated that it was 'very important'. Visitors to Galloway and the Scottish Borders were most likely to state that the forest visited was 'the only reason' for visiting these areas (47% and 40% respectively) while 4% of visitors to Cowal & Trossachs indicated that the site visited was 'not important at all' in their decision to visit the area.

Comparing responses amongst those who took part in different activities, almost half of cyclists/ mountain bikers stated that the forest was their 'only reason for coming' to the area (46%), a much higher proportion than amongst those who walked (20%).

Figure C-8 – Importance of forest and facilities in decision to visit area

Base: All respondents (2,694)



Those taking part in cycling or mountain biking and those aged under 35 were also more likely than the average to state that the forest visited was 'the only reason' for their visit to the area (46% and 29% respectively).

By applying the proportion (23%) who stated that the forest was the ‘only reason’ for their visit, to the estimated total number of visits taken to FCS forests (8.4 million¹⁷), it may be estimated that the choice of destination for at least 1.9 million visits was directly influenced by the presence of a forest.

Expenditure and economic impact

Average spend per person per day

All visitors were asked to specify how much money they had or would personally spend on a number of items that day and, if they were on an overnight trip, how much they had spent on their accommodation the previous night.

Across all respondents (day trippers and visitors on trips away from home), 48% spent nothing while three in ten spent £20 or less in total (30%). The average spend per person across all visitors (i.e. including those who spent nothing) was £17.

As the table overleaf illustrates, 12% of all forest visitors had paid for overnight accommodation during the previous 24 hours (or would do so on the day of interview), with an average spend amongst those who had spent anything (i.e. excluding zeros) of £46.

¹⁷ ¹⁷ This total excludes the estimated 0.3 million nocturnal visits to forests as it is assumed that these visitors are likely to live in the local area. However the estimated 0.2 million visitors attending events are included as it is assumed that these visitors are less likely to live locally.

Table C-16 Expenditure per person per day (row %)

Base: All respondents (2,694)

	Nothing	Up to £20	£21 to £50	Over £50	Don't Know/ Not stated	Average (including zeros)	Average (excluding zeros)
Overnight accommodation	87	4	4	4	1	£6	£46
Food and drink	71	23	4	1	1	£5	£19
Admission fees	91	7	*	*	1	<£1	£6
Shopping (non-routine)	91	6	1	1	1	£2	£23
Transport	65	29	4	1	1	£4	£11
Equipment	97	1	*	*	1	<£1	£23
TOTAL	48	30	10	10	3	£17	£33

- nil respondents * fewer than 0.5%

Note: Averages exclude respondents who did not know or did not state expenditure.

The total average spend per visitor varied between Forest Districts and the different groups of visitors. The highest average spend per person, including those who spent nothing, was in Fort Augustus* (£35) while spend was lowest in the Scottish Lowlands (£6).

In general, expenditure was highest amongst those on overnight trips (£63), those on their first visit to the forest (£49) and those who took part in cycling or mountain biking (£32) but lowest amongst dog walkers (£8), those on a day trip (£7) and those who visit the forest at least once a week (£5).

*Caution: sample size less than 100

Economic benefits of forests

By applying information on average levels of expenditure per person per day, to data relating to the influence of forests on decisions to visit, it is possible to estimate total spend by visitors whose decisions to go to the area were affected by the presence of a forest to visit.

The following calculations apply these results to obtain an overall estimate:

A: Total visits to forests = **8.4 million**¹⁸.

B: Proportion of visits taken by people who stated that the forest and its facilities were their *only reason* or *very important* in their decision to visit the area. Excluding people who live locally (i.e. within 6 miles of forest) whose expenditure in the area is likely to have occurred regardless of the presence of the forest = **27%**

C: Total visits taken due to forests and facilities (A x B) = **2.3 million**

D: Average spend per person per day amongst those who visited due to forests and facilities = **£17**

E: Estimated total spend per year by people who visited due to forests and facilities (C x D) = **£38.9 million**

This calculation suggests that visitors who were influenced to take their visit to an area due to the forest and its facilities spent approximately £38.9 million. This expenditure was made during the day of the forest visit and included overnight accommodation, food and drink, transport and non-routine shopping.

¹⁸ This total excludes the estimated 0.3 million nocturnal visits to forests as it is assumed that these visitors are likely to live in the local area. However the estimated 0.2 million visitors attending events are included as it is assumed that these visitors are less likely to live locally.

D. Summary of key results by forest district

	Dornoch	Inverness	Fort Augustus	Lochaber	Lorne	West Argyll	Moray	Aberdeen-shire	Tay	Cowal	Scottish Lowlands	Scottish Borders	Ae	Galloway
Estimated total visits ('000s)	119	639	268	559	297	292	360	694 Buchan 789 Kincardine	717	471	938	821	413	812
Visitor profile	Larger than av. % with children <16 (28%)	Higher than av. % Affluent Achievers (53%)	Higher than av. % aged 45+ (48%)	Higher than av. % aged 45+ (52%)	Higher than av. % aged 45+ (56%)	Larger than av. % age 35-59 (54%)	Larger % of female visitors (54%)	Larger than av. % with children <16 (19%)	Higher than av. aged 45+ (53%)	Larger than av. % with children <16 (23%)	Higher than av. % Hard Pressed (33%)	Higher than av. % aged 16-34 (35%). More males (65%)	Larger % of female visitors (54%)	Higher than av. aged 45+ (48%). More males (62%)
Type of trip	Higher than av. % on local day trip (56%)	Higher than av. % on local day trip (55%)	Higher than av. % on holiday (37%)	Higher than av. % on holiday (51%)	Higher than av. % on holiday (46%)	Higher than av. % on local day trip (56%)	Very high % on local day trip (73%)	Higher than av. % on over 6 miles from home day trip (43%)	Mix of local, day trip and holiday visitors.	Mix of local, day trip and holiday visitors.	Highest. % on local day trip (76%)	Highest % on over 6 miles from home day trip (57%)	Mix of local, day trip and holiday visitors.	Higher than av. % on over 6 miles from home day trip (43%)
Travel to forest	Vast majority travel by car (82%)	Higher than av. % walked (25%)	Higher than av. % walked (29%)	Higher than av. % cycled to forest (6%)	Higher than av. % walked (37%)	Higher than av. % walked (41%)	Higher than av. % car (87%)	Higher than av. % car (90%)	Higher than av. % car (86%)	More than av. (23%) travelled over 25 miles to forest	Higher than av. % walked (37%)	Much more than av. (34%) travelled over 25 miles to forest	Higher than av. % car (88%)	Vast majority travel by car (84%)
Frequency of visits	87% on repeat visit.	83% on repeat visit. Fairly high av. visits per year (118).	75% on repeat visit. Low av. visits per year (75).	73% on repeat visit. Low av. visits per year (77).	Highest. % on first visit to forest (33%).	Higher than av. % on first visit to forest (28%)	Vast majority (94%) on repeat visits	Vast majority (90%) on repeat visits	79% on repeat visit.	Higher than av. % on first visit to forest (28%)	Vast majority (94%) on repeat visits. Highest av. visits per year (163).	Lowest av. visits per year (57)	84% on repeat visit.	Vast majority (91%) on repeat visits
Average duration of visits	59min	59min	1hr 12min	1hr 9min	1hr 26min	1hr 20min	1hr 3min	1hr 13min	1hr 36min	1hr 49min	1hr 8min	2hrs	1hr 41min	1hr 31min
Activities undertaken	Higher than av. % of dog walkers (58%)	Higher than av. % cycling/mountain biking (24%)	52% walked with a dog, 29% took part in other walking.	Variety– 53% dog walking, 29% other walking, 10% cycling	Higher than av. % of walking without dog (39%)	Higher than av. % of walking without dog (44%)	Highest % of dog walkers (70%)	Variety– 55% dog walking, 32% other walking, 5% cycling.	Majority walking with or without a dog (55% and 33%)	Highest % of walking without dog (55%)	Majority walking with or without a dog (53% and 22%)	Highest % of cycling/mountain biking (48%)	48% dog walking, 13% cycling or mountain biking.	Higher than av. % of dog walkers (62%)
Average expenditure on day of visit	£19	£21	£35	£30	£34	£13	£25	£6	£23	£28	£6	£27	£19	£4

E. Appendices

- 1. All Forests Methodology Guidance**
 - 2. Questionnaire**
 - 3. Contact Sheet**
 - 4. Count Sheet**
 - 5. Example of a forest block**
 - 6. Confidence intervals for volume of visitors**
-

Appendix 1 - All Forests Methodology Guidance

1. Introduction

These guidance notes outline the visitor monitoring methodology which aims to predict visitor numbers in Scotland.

2. Purpose of survey

The purpose of the method outlined here is to provide reliable estimates of visitor numbers, visitor activities and profiles of different types of visitors.

The sampling strategy employed the same amount of effort to each selected forest block within the Forest District. Blocks were categorised by their local population density and their level of use, allowing for comparisons to be made between blocks with similar characteristics.

3.0 All Sites

The aim of this survey is to provide more reliable estimates of visitor numbers, visitor activities and profiles of different types of visitors than previously. It has been applied across the whole FC estate in Scotland over a three-year period, starting in June 2004 and took into account the whole range of forest types. Five Forest Districts in Scotland were covered each year.

The basis of this programme has been forest blocks and access points within forest blocks. Blocks were categorised by their level and type of use on the basis of local judgement. Local categorisation should allow for greater stratification of forest blocks within districts and across the country than if countrywide measures were applied.

Surveying took place at all access points within a sample of blocks from each Forest District (typically 20% of a district's blocks) and a statistical model was developed to apply the information gathered across similar access points and similar blocks within the districts.

3.1 Blocks

Forest Districts stratified their forests into blocks. A block is an area (of whole compartments) in which most visitors would be expected to stay in one visit. The block was categorised by level of population (within 15km) and level of use. Level of use and population density were categorised as high, medium or low based on local perception. A range of data was gathered for each block by completing the Block Spreadsheet, including information such as the types of facilities available and types and numbers of access points. In addition some of the block characteristics were also collected, including whether the block is freehold or leasehold, and local staff's perception of whether it is used predominantly by locals or holidaymakers.

On the basis of the above information FC Economics & Statistics, FC Scotland and the districts chose which blocks would be surveyed. Choices were aimed at providing a range of use and population levels and a range of locations across the district. Approximately 20% of a district's blocks were selected for sampling.

When a leasehold block was selected for survey the district notified the landowner in advance, to inform that the work was due to go ahead.

3.2 Access Points

For each of the blocks selected for survey, information about the block's access points was gathered by Forest Districts and entered into the Access Point Spreadsheet, which included information such as access point type (official car park, unofficial car park, other entrance, or 'permeable boundary') and a grid reference for each access point. Completing this spreadsheet generated a unique reference number for each access point in the forest estate which was used during information gathering and analysis.

In addition, maps were produced to show the blocks to be surveyed with the access points, the access point code and each access point's unique number marked.

3.3 Selecting blocks

As noted in section 3.1, about 20% of each Forest District's blocks were sampled, giving around five to ten blocks per district to be monitored.

In each district roughly half of high usage blocks, a quarter of medium usage blocks and an eighth of low usage blocks were sampled, distributed across the different levels of population density categories.

Unusually busy blocks were treated separately and required a slightly different sampling system. Other 'atypical' blocks also required consideration, for example, blocks where there is only limited access, or blocks where more than half, say, of the boundary is permeable.

3.4 Sampling procedure

Section 4.3 below sets out the system that was used in the programme of counting and interviewing. Monitoring followed a predetermined programme and took place whatever the weather conditions.

4.0 Sampling

4.1 Contract for All Forests Monitoring Methodology

The fieldwork ran for a full 3 year period, from June 2004 to June 2007.

While Forestry Commission Scotland set out the sampling systems and locations and provided all relevant background information, the contractors were expected to adopt a flexible approach. In particular, FC Scotland, FC Economics & Statistics and the contractors met regularly to discuss progress and any issues which arose during the fieldwork. As a result, some modifications to the fieldwork schedules were required.

4.2 Sites for Monitoring

For each Forest District to be monitored, FC Scotland and Economics & Statistics selected around 20% of each district's forest blocks for sampling. Each block was categorised based on level of use (high, medium or low) and population level within 15km (high, medium or low). Paragraph 3.1 describes the methodology for selecting blocks.

Within each block access points were split into the following codes:

- A = official car park
- B = unofficial car park
- C = other entrance
- D = permeable boundary

Every access point in the selected forest blocks was monitored. Monitoring consisted of counting visitor numbers into and out of access points and also conducting visitor surveys at access points.

Contractors were supplied with maps showing the location of blocks and access points.

4.3 Monitoring System

Observations (counts and interviews) were recorded at a variety of dates and times. The observation periods that were covered are:

- weekdays
- Saturdays
- Sundays
- early (sunrise-1000)
- middle (1000-1600)
- late (1600-sunset).

Monitoring was set out in a predetermined programme. Counting was carried out at all the access points for the selected blocks. Each access point had around 9 count observations (each lasting one hour) spread throughout the 12-month period (including public holidays) and across the three time periods and in each of the three 'day of week' periods. Around 50% of the counting observation period took place during the "middle" time period, with the remaining 50% split fairly evenly between the "early" and "late" time periods.

The matrix overleaf gives an example of how the times and days were distributed throughout the 12-month period. Access point 1 from block 1 (*), and access point 2 from block 1(♣) are indicated. They cover all time periods and all 'day of week' options and are spread over the 12-month fieldwork period.

Over the 12-month period;

* = Block 1, Access Point 1

♣ = Block 1, Access Point 2

Month	Weekday (rotate Mon-Fri)			Saturday			Sunday		
	Early	Mid	Late	Early	Mid	Late	Early	Mid	Late
January				*	♣				
February								*	♣
March	♣	*							
April					*	♣			
May							♣	*	
June	*	♣							
July					♣	*			

August								♣	
September		*							
October		♣							
November									*
December									

Each time an access point has an 'early' slot it should try to be at a different hour during the early period, for example the first one could be 0800-0900 and the second 0900-1000. Similarly for 'mid' and 'late' slots.

Each access point was added in a similar manner to (an extended version of) the grid above. It was possible, depending on geographic locations, for one 'counter' to complete 6 counting periods in one day, at different access points. At any time we only want to be counting at one access point in each block.

Counts and observations were made of people entering **and** leaving the access point.

b. Interviewing

Interviewing took place at each access point at the same time as counting was undertaken. Interviews were conducted as people **exited** the forest. The questionnaire used is provided in Appendix 2.

4.4 Recording and Return of Data

Count and interview observations were recorded as described above (4.3). The data was input, analysed and supplied electronically to FC Economics & Statistics.

Appendix 2 – Questionnaire

FORESTRY COMMISSION VISITOR MONITORING SCOTLAND (015794) - YEAR 1						OFFICE USE ONLY (1 - 6) 015794 (7-10) - - - - (11) 1							
Name.....						(12)							
Address.....						Sex: Male 1 Female 2							
Postcode <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>						Location code: (see instructions)							
(27) (28) (29) (30) (31) (32) (33)						<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>							
(13) (14) (15) (16) (17) (18) (19) (20) (21)													
Telephone number.....													
Date of interview		Day		Month		Age:		(22)					
		<input type="text"/> <input type="text"/>		<input type="text"/>		16-24		1					
		(34) (35)		(36)		25-34		2					
		(24 hours clock)						35-44		3			
Time of interview		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>				45-59		4					
		(37) (38) (39) (40)				60+		5					
Place of residence: (from address)													
(41)													
.....													
(42)													
SHOW CARD H													
Please indicate which of the following ethnic groups you consider that you belong to.													
White		(23)		Black, Black Scottish, Black Welsh, Black English or other Black British		(24)							
Scottish		1		Caribbean		1							
Welsh		2		African		2							
English		3		Any other Black background (WRITE IN)		3							
Other British		4										
Irish		5		Mixed									
Any other White background (WRITE IN)		6		Any Mixed background (WRITE IN)		4							
.....												
Asian, Asian Scottish, Asian Welsh, Asian English or other Asian British				Other ethnic background (WRITE IN)		(25) (26)							
Indian		7										
Pakistani		8											
Bangladeshi		9											
Chinese		0											
Any other Asian background (WRITE IN)		X											
.....													

DECLARATION: Interview conducted by me with respondent named above in accordance with instructions and MRS Code of Conduct

Interviewer.....Interviewer ID..... Date.....

Good Morning/Afternoon/Evening. I am conducting a survey on behalf of TNS Travel and Tourism on behalf of the Forestry Commission. The survey is to find out about who visits Forestry Commission woodland in Scotland and their reasons and frequency of their visits, and I would like to ask you a few questions.

The interview length depends on the answers you provide, but will last on average 8 to 10 minutes.

Here is a leaflet that explains your rights under our industry code and the data protection act.

First of all, can I check that you have not been interviewed already at this woodland site?

Yes – been interviewed already	1	Close
-----	-----	-----
No – not been interviewed	2	Continue

Q.1a) Have you travelled from home today?

	(43)
Yes	1
-----	-----
No	2

Q.1b) And will you be returning home later today?

	(44)
Yes	1
-----	-----
No	2

<p>IF RESPONDENT HAS TRAVELLED FROM HOME AND IS RETURNING HOME TODAY (CODE 1 AT Q.1a AND Q.1b) GO TO Q3.</p> <p>IF RESPONDENT HAS NOT TRAVELLED FROM HOME AND/OR IS NOT RETURNING HOME TONIGHT (CODE 2 AT Q1a AND/OR Q1b) ASK Q2</p>
--

SHOW CARD A

Q.2a) **IF RESPONDENT DID NOT TRAVEL FROM HOME TODAY ASK:**
 What type of accommodation did you stay in last night?
ALTERNATIVELY, IF RESPONDENT TRAVELLED FROM HOME BUT IS NOT RETURNING TONIGHT ASK:
 What type of accommodation will you stay in tonight?
 SINGLE CODE (45)

Tent/Caravan/Cabin	1
Guest House/Bed and Breakfast	2
Hotel	3
Staying with friends/relatives	4
Youth Hostel/Outdoor Centre	5
Self-catering	6
Other (SPECIFY)	
.....	

Q.2b) How many nights in total will you be spending **away from home** during your current trip?

(46) (47)

WRITE IN

--	--

Q.2c) And how many nights of these nights, if any, will you be spending **in Scotland**?

(48) (49)

WRITE IN

--	--

Q.2d) During your trip away from home, how many times will you set out specifically to visit a forest or wood? Please include your current trip.
REMEMBER TO INCLUDE CURRENT FOREST VISIT.

(50) (51)

WRITE IN

--	--

**ASK ALL
SHOW CARD B**

How far did you travel to get here today, from your home or accommodation?

- SINGLE CODE. NOTE - THIS IS ONE DIRECTION ONLY. (52)
- | | |
|-----------------------------|---|
| Less than 6 miles/ 10 km | 1 |
| 6 to 15 miles/ 11 to 25 km | 2 |
| 16 to 25 miles/ 26 to 40 km | 3 |
| 26 to 50 miles/ 41 to 80 km | 4 |
| Over 50 miles/ Over 80 km | 5 |
| Don't Know | Y |

Q.4 **SHOW CARD C**
What was the **main** type of transport you used to get here today?
SINGLE CODE TRANSPORT USED TO TRAVEL THE LONGEST PART OF THEIR JOURNEY

- | | |
|---|---|
| Car/ Van | 1 |
| Minibus/Coach | 2 |
| Public transport (scheduled bus, train, taxi, etc.) | 3 |
| Bicycle | 4 |
| Walked | 5 |
| Other (SPECIFY) (54) (55) | |
-

Q.5a) Have you been to *this woodland site/ here** before?

*IF YOU ARE INTERVIEWING IN NON-WOODED AREA USE 'HERE'

	(56)	
Yes	1	Ask Q5b
-----	-----	-----
No	2	Skip to Q6

IF NO, SKIP TO Q.6

SHOW CARD D

- Q.5b) How often, on average, do you come here?
SINGLE CODE (57)
- | | | |
|----------------------|---|--|
| More than once a day | 1 | |
| Once a day | 2 | |
| 1 to 3 times a week | 3 | |
| 1 to 3 times a month | 4 | |
| 1 to 3 times a year | 5 | |
| Less often | 6 | |
| Don't Know | Y | |

ASK ALL

- Q.6 **SHOW CARD E**
What was your **main** activity during your visit today?
SINGLE CODE (58)
- | | | | |
|---|---|---------------|---|
| | | Dog walking | 1 |
| | | Other walking | 2 |
| | Cycling/ Mountainbiking <u>on</u> waymarked tracks | | 3 |
| | Cycling/ Mountainbiking <u>off</u> waymarked tracks | | 4 |
| | Horse riding | | 5 |
| | Picnic | | 6 |
| Seeing something in the woodland (e.g sculptures, ancient tree, waterfalls) | | | 7 |
| Just passing through | | | 8 |
- An organised event (PLEASE SPECIFY) (59)
-
- Other activity (SPECIFY)
-

- Q.7 How long have you been in *this woodland/ here** today?
*IF YOU ARE INTERVIEWING IN NON-WOODED AREA USE 'HERE'

	Hours		Minutes	
RECORD TO THE NEAREST 15 MINUTES				
	(60)		(61) (62)	

- Q.8a) Do you (or anyone else in your group) have a disability or special needs?
- | | | | | | |
|--|-----|---|------|------------|--|
| | | | | | |
| | Yes | 1 | (63) | Ask Q8b | |
| | No | 2 | | Skip to Q9 | |

IF NO, GO TO Q9

Q.8b) What type of disability or special need, do you (or anyone in your group) have?
CODE ALL MENTIONED

	Sight	(64)
	Hearing	1
	Mobility	2
	Other (SPECIFY)	3
		4

.....

ASK ALL
 Q.9 If we could improve just **one** thing about *this woodland/ here**, what should it be?
SINGLE THING ONLY

	(66)
	(67)
	(68)

SHOW CARD F
 Q.10 How important was the presence of this forest and its facilities in your decision..
DAY TRIPPERS: to come to this area for a day out?
THOSE STAYING AWAY FROM HOME: to visit this area while on holiday?
SINGLE CODE

	The only reason for coming	(69)
	Very important	1
	Quite important	2
	Neither important nor unimportant	3
	Not very important	4
	Not important at all	5
	Not relevant – I live in this area	6
	Don't know	7
		Y

.11 Next I would like to ask you about your spending **TODAY**.

OFFICE USE ONLY	
(1 - 10) REPEAT	
(11) 2	

IF NOT STAYING AWAY FROM HOME (CODE 1 AT Q1A and Q1B) SKIP TO Q11B)
--

.11a) How much did you **personally** spend on accommodation (including food and drink at the accommodation) **LAST NIGHT**?

OR

IF RESPONDENT HAS NOT YET SPENT A NIGHT AWAY FROM HOME

How much do you personally expect to spend on accommodation (including food and drink at the accommodation) **TONIGHT**? Please **include** the amount spent/you will spend on any others (adults and children) for whom you have paid/will pay. If you are on a business trip please include any expenditure paid for by your company.

WRITE IN BELOW UNDER APPROPRIATE AREA. IF RESPONDENT DOES NOT KNOW EXACT AMOUNT AN ESTIMATE WILL DO. DO **NOT** LEAVE BLANK. IF NOTHING WRITE IN 0 0 0. IF DON'T KNOW WRITE IN YYY

11(b-h) **ASK ALL, SHOW CARD G**

Can you tell me how much you **PERSONALLY** have spent/will spend **TODAY** on each of the following categories. That is the amount you have spent today already plus that which you will spend later today. Please **include** the amount spent/you will spend on any others (adults and children) for whom you have paid/will pay. If you are on a business trip please include any expenditure paid for by your company.

IF RESPONDENT IS UNABLE TO GIVE SPENDING ON EACH CATEGORY ASK FOR THEIR TOTAL SPENDING TODAY

WRITE IN BELOW UNDER APPROPRIATE AREA. IF RESPONDENT DOES NOT KNOW EXACT AMOUNT AN ESTIMATE WILL DO. DO **NOT** LEAVE BLANK.

IF NOTHING WRITE IN 0 0 0. IF DON'T KNOW WRITE IN D/K

	£		
	12	13	14
a) Accommodation (incl. food & drink)			
b) Food and drink (excluding at accommodation)			
c) Admission fees (to attractions)			
d) Shopping (non-routine, e.g. souvenirs)			
e) Transport (including, petrol, taxis, public transport etc)			
f) Equipment (e.g. hire of boat, horse-riding)			
g) Other miscellaneous items			
h) TOTAL			

- Q.12a) Can you tell me the age group and sex of all the people with you on this visit.
Please remember to **include** yourself. CODE BELOW
IF IN A LARGE GROUP/IN A COACH PARTY ONLY RECORD DETAILS OF THE IMMEDIATE PARTY

	Male	Female
Under 5 years	(36)	(44)
5 – 10 years	(37)	(45)
11 – 15 years	(38)	(46)
16 – 24 years	(39)	(47)
25 – 34 years	(40)	(48)
35 – 44 years	(41)	(49)
45 – 59 years	(42)	(50)
60+ years	(43)	(51)

- Q.12b) ALSO PLEASE RECORD THE NUMBER OF DOGS, BICYCLES AND /OR HORSES WITH RESPONDENT
WRITE IN BELOW IF NONE WRITE IN 0

Dogs	(52)
Bicycles	(53)
Horses	(54)

COLLECT CLASSIFICATION DETAILS AND THANK RESPONDENT

Appendix 3 – Contact sheet

<p>FORESTRY COMMISSION VISITOR MONITORING – SCOTLAND YEAR 1 (015794) CONTACT SHEET</p>	<p><u>OFFICE USE ONLY</u> (1-7) 015794A (8-11) _____</p>																																		
<p>Location Code</p> <table style="width: 100%; text-align: center;"> <tr> <td style="width: 25px; height: 20px; border: 1px solid black;"></td> <td style="width: 25px; height: 20px; border: 1px solid black;"></td> <td style="width: 25px; height: 20px; border: 1px solid black;"></td> <td style="width: 25px; height: 20px; border: 1px solid black;"></td> <td style="width: 25px; height: 20px; border: 1px solid black;"></td> <td style="width: 25px; height: 20px; border: 1px solid black;"></td> <td style="width: 25px; height: 20px; border: 1px solid black;"></td> <td style="width: 25px; height: 20px; border: 1px solid black;"></td> </tr> <tr> <td>(13)</td> <td>(14)</td> <td>(15)</td> <td>(16)</td> <td>(17)</td> <td>(18)</td> <td>(19)</td> <td>(20)</td> </tr> </table>									(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	<p>Interviewer (initials)</p> <p>_____</p>																		
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)																												
<p>Date of interview shift</p> <table style="margin-left: 100px;"> <tr> <td style="text-align: center;">Day</td> <td style="text-align: center;">Month</td> </tr> <tr> <td style="text-align: center;"> <table style="border: 1px solid black; width: 60px; height: 20px;"> <tr> <td style="width: 30px;"></td> <td style="width: 30px;"></td> </tr> <tr> <td style="text-align: center;">(21)</td> <td style="text-align: center;">(22)</td> </tr> </table> </td> <td style="text-align: center;"> <table style="border: 1px solid black; width: 60px; height: 20px;"> <tr> <td style="width: 60px;"></td> </tr> <tr> <td style="text-align: center;">(23)</td> </tr> </table> </td> </tr> </table>	Day	Month	<table style="border: 1px solid black; width: 60px; height: 20px;"> <tr> <td style="width: 30px;"></td> <td style="width: 30px;"></td> </tr> <tr> <td style="text-align: center;">(21)</td> <td style="text-align: center;">(22)</td> </tr> </table>			(21)	(22)	<table style="border: 1px solid black; width: 60px; height: 20px;"> <tr> <td style="width: 60px;"></td> </tr> <tr> <td style="text-align: center;">(23)</td> </tr> </table>		(23)	<p>Interview shift <u>start</u> time</p> <table style="margin-left: 100px;"> <tr> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> <td style="padding-left: 10px;">(24 hour clock)</td> </tr> <tr> <td style="text-align: center;">(24)</td> <td style="text-align: center;">(25)</td> <td style="text-align: center;">(26)</td> <td style="text-align: center;">(27)</td> <td></td> </tr> </table>					(24 hour clock)	(24)	(25)	(26)	(27)															
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<p>Special events IF THERE IS A SPECIAL EVENT ON DURING YOUR SHIFT PLEASE RECORD DETAILS OF NAME OF EVENT, TYPE OF EVENT AND ESTIMATED NUMBERS ATTENDING.</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>																																			
<p>Comments on shift PLEASE PROVIDE DETAILS OF ANY PROBLEMS ENCOUNTERED DURING YOUR SHIFT SUCH AS LACK OF VISITORS TO INTERVIEW, PROBLEMS WITH INTERVIEW LOCATION ETC.</p> <div style="border: 1px solid black; height: 60px; width: 100%;"></div>																																			

Interviewer..... ID Date.....

Appendix 4 – Count sheet

FORESTRY COMMISSION VISITOR MONITORING – SCOTLAND YEAR 1 (015794) COUNT SHEET	OFFICE USE ONLY (1-7) 015794B (8-11) _____
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Location Code <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> </tr> </table>									Counter (initials) _____

Date of counts	Day <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table> (21) (22)			Month <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 100%;"></td> </tr> </table> (23)			
Count <u>start</u> time	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table> (24) (25) (26) (27) (24 hour clock)						
Count <u>end</u> time	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table> (28) (29) (30) (31) (24 hour clock)						

Weather
 CIRCLE ONE NUMBER ON EACH ROW.
 USE 2 FOR MIDLING/ MIXED WEATHER

Dry	1	2	3	Wet	(32)
Hot	1	2	3	Cold	(33)
Sunny	1	2	3	Overcast	(34)
Calm	1	2	3	Windy	(35)

Parked cars
 IF YOU ARE AT A CAR PARK ENTRANCE (OFFICIAL OR UNOFFICIAL) PLEASE RECORD THE NUMBER OF CARS PRESENT AT THE START AND END TIMES.

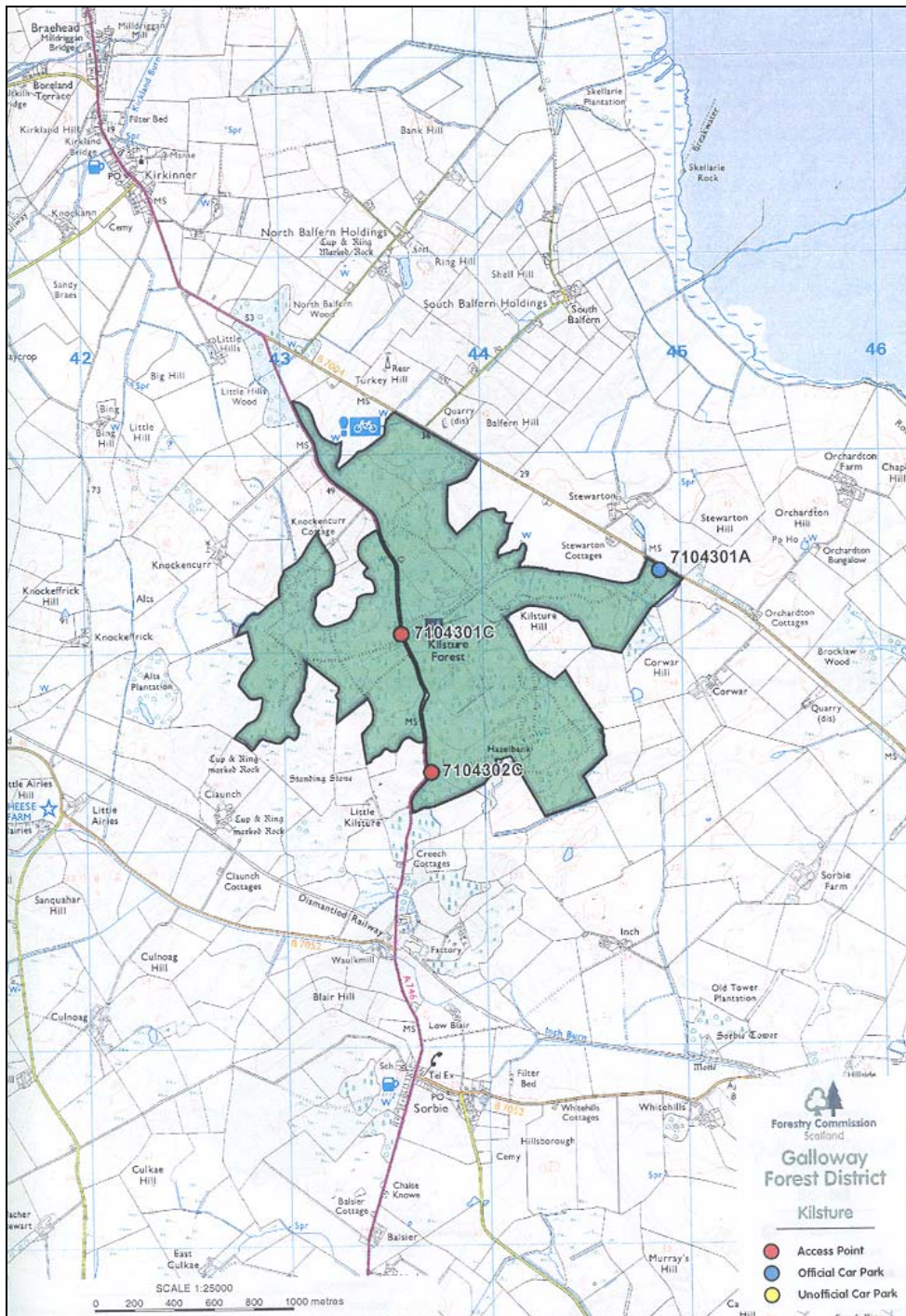
Number of cars at start		Number of cars at end		
	(36) (37) (38)		(39)(40)(41)	

Special events
 IF THERE IS A SPECIAL EVENT ON DURING YOUR SHIFT PLEASE RECORD DETAILS OF NAME OF EVENT, TYPE OF EVENT AND ESTIMATED NUMBERS ATTENDING.

WRITE IN TOTALS FROM COUNT SHEETS AT THE END OF 1 HOUR PERIOD (REMEMBER TO INCLUDE ANY CONTINUATION SHEETS USED) :

ENTERING							LEAVING						
Visitors							Visitors						
On foot	On bike	On horse	Staff	Dogs	Prams	Wheel-chairs	On foot	On bike	On horse	Staff	Dogs	Prams	Wheel-chairs
(42) (43)	(44) (45)	(46) (47)	(48) (49)	(50) (51)	(5) (53)	(54) (55)	(56)(57)	(58) (59)	(60) (61)	(62) (63)	(64) (65)	(66) (67)	(68) (69)

Appendix 5 – Example of forest block – Block 43, Kilsture, Galloway



Appendix 6 - Confidence intervals for volume of visitors

This survey builds on a methodology developed for the Forestry Commission by Cheltenham and Gloucester College of Higher Education, which created an efficient way of balancing the cost of data collection at a large number of forest entrances, spread over a wide geographical area, with data precision and accuracy. This survey stratified forest blocks by the population density within 15km of the site and by the perceived level of usage, and therefore relies on the correct allocation of sites to the relevant strata. However, there is still a large degree of variability within a given forest block, from highly developed facilities with car parking and visitor centres, to remote access points. Several factors affected the precision of the estimates derived from this survey method:

1. The sampling of a proportion of forest blocks within each Forest District; typically around 20% of forests were included within each district.
2. While surveying was undertaken at all access points to sampled forest blocks, there was a high variability in the number of visitors using different access points within each block.
3. A relatively small number of hours of surveying were undertaken at each access point and results were then weighted to cover all daylight hours.

The precision of the estimates of the volume of visitors to FCS woodland presented in Section B of the report have been calculated using information about the number of forest blocks included in the survey, the number of access points at each of these blocks and the weights applied in the grossing up of results.

In arriving at these estimates, the usage and population categorisation used to stratify forest blocks and the proportion of sampled access points within each of the strata in each Forest District have also been taken into account. This approach has therefore considered the likely uncertainty around results, arising from the points numbered 1 and 2 as above.

On this basis the confidence intervals around the estimates of total visits to each of the Forest Districts included in the survey are as follows.

Confidence intervals for estimates of total visits to surveyed FCS Woodland 2004-2007

	Estimates of visits \pm95% CI	
Dornoch	119,000	\pm 44,000
Inverness	639,000	\pm 211,000
Fort Augustus^{1,2}	268,000	\pm 91,000
Lochaber	559,000	\pm 240,000
Lorne	297,000	\pm 62,000
West Argyll	292,000	\pm 172,000
Moray	360,000	\pm 133,000
Aberdeenshire, of which Buchan Kincardine	694,000 789,000	\pm 389,000 \pm 316,000
Tay	717,000	\pm 244,000
Cowal & Trossachs	471,000	\pm 109,000
Scottish Lowlands	938,000	\pm 150,000
Scottish Borders^{1,3}	821,000	\pm 344,000
Ae	413,000	\pm 173,000
Galloway	812,000	\pm 617,000
Total	8.2 million	\pm912,000

¹Data from other sources, including vehicle counters, have been used to obtain estimates for Fort Augustus and Scottish Borders.

²The margins of error for Fort Augustus are based upon the standard errors associated with the data collected in the manual counts conducted for this survey.

³The uncertainty surrounding the Scottish Borders estimate is unaffected by the divergence from the survey methodology, which only applied to one site (Glentress) which, in the analysis, was placed in a stratum of its own.

The table above shows the range of uncertainty related to sampling a proportion of entrances at the woodlands in each of the Forest Districts. The total estimated volume overall is in the range **7.3 to 9.1 million visits** each year, at the 95% confidence interval. The large confidence intervals are indicative of the fact that the entrances do not contribute equally to the total number of people visiting FCS woodland - entrances range from highly developed facilities, with car parking and visitor centres, to remote rural access points.

To examine the third factor affecting the precision of the results, relating to variation over time, further analysis of the effect of only around nine one-hour time periods for each access point has been undertaken. This source of variation would be expected to have most effect (in percentage terms) on access points with few visitors.

For a range of different sizes of access point, visitor numbers in each day/time period were modelled as a Poisson process. In each simulation, the annual total for the access point was calculated from the statistical model output using the typical grossing factors applied to each day/time, and the results were then aggregated to give totals for a hypothetical stratum with a mix of sizes. Several thousand simulations were run to estimate the variation from this source.

As expected, the results show that the percentage standard error from this source (uncertainty about variation over time), varied with the numbers of visits estimated to have occurred via any particular access point - in the examples modelled, varying from around 10% to around 30% of the estimated total for a stratum, although the range could be wider depending on the make-up of the stratum. This source of uncertainty is separate (independent) from factors 1 and 2, so the standard errors from the two sources can be combined (by adding the variances).

If there had been very little variation from factors 1 and 2 (if almost all sites had been surveyed, or if most access points in a stratum had similar counts) then uncertainty from variation over time could have been important. However in this survey there was a often considerable variation between the numbers of visits estimated to have taken place via each access point to any given block (from high usage car parks, to more remote entrances); this was especially the case where the estimated visit numbers to a forest block were relatively high. For many strata, the uncertainty from factors 1 and 2 was well over 100%, so adding the modelled variation over time added little to the overall total variation for the stratum.

Therefore, the method of sampling employed by this survey means that it is likely that most of the overall variation in the number of visits is due to the selection of the forest blocks and stratification of access points, rather than variation caused by conducting small numbers of hours of fieldwork at each access point.

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