

Public Opinion of Forestry 2021: Scotland

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Issued by: Forest Research, Silvan House,
231 Corstorphine Road, Edinburgh, EH12 7AT

Enquiries: Robert Stagg, 0300 067 5238
statistics@forestresearch.gov.uk

Statistician: Sheila Ward, 0300 067 5236

Website: www.forestresearch.gov.uk/statistics/

The Research Agency of the
Forestry Commission

Forest Research is the Research Agency of the Forestry Commission and is the leading UK organisation engaged in forestry and tree related research.

The Agency aims to support and enhance forestry and its role in sustainable development by providing innovative, high quality scientific research, technical support and consultancy services.

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Introduction

Surveys of public attitudes to forestry and forestry-related issues have been conducted by Forest Research (and previously the Forestry Commission) since 1995, generally on a biennial basis.

This publication presents results from the Scotland Public Opinion of Forestry Survey 2021, commissioned by Scottish Forestry, on:

- Forestry in the media;
- Benefits of forestry;
- Climate change;
- Wood as a fuel;
- Woodland visits;
- Health and wellbeing;
- Changes to woodland;
- Woodland learning activities;
- Tree health;
- Urban trees.

Fieldwork for the survey was undertaken in March 2021 and a copy of the questionnaire used in this survey, giving complete wording of questions and the response options available, is provided in the Annex at the end of this report.

Surveys have also been run across the UK (to provide results for the UK and for England) and in Wales. Separate reports, providing results from these surveys, are available at www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/public-opinion-of-forestry/.

Results from the 2021 survey are published for the first time in this release and are shown alongside results from earlier surveys, where appropriate. Figures for earlier years have not been revised from those previously released. For further details, see the Revisions section of the Annex.

As the data are obtained from a sample survey, there is a range of uncertainty (confidence interval) associated with any results produced. Any differences referred to in the text are statistically significant at the 95 per cent confidence level unless otherwise stated. For further details, see the Data Sources and Methodology and the Quality sections of the Annex.

Unless otherwise specified, this report refers to woodlands and trees in both urban and rural settings. The Glossary in the Annex provides further information on terms used.

Impact of Coronavirus (COVID-19) restrictions on the 2021 survey

Restrictions on people's movements came into place on 23 March 2020 as a result of the Coronavirus (COVID-19) pandemic. Although some of the restrictions have changed over time, some remained in place for the rest of 2020 and early 2021. This has impacted the survey in 2 ways.

Firstly, the restrictions in place in early 2021 led to a change in methodology for the latest survey, with the survey being run by telephone for the first time (previously, face-to-face interviewing had been used). Consequently, results for the latest survey may not be fully consistent with previous surveys. Further information on the methodology is provided in the Annex.

Secondly, requirements to stay at home (with people only being allowed outdoors for one hour a day in order to undertake exercise) and requirements to stay in local areas, both of which were in force for some of the year leading up to the survey, may have resulted in changes to the responses provided to the survey in a variety of ways, for example:

- For some, the limitations on other activities may have increased the number of people visiting woodlands or forests and/ or the frequency of visits;

- For others, the requirement to stay in local areas and/or concern about the virus may have resulted in fewer visits.

It is not possible to quantify the extent to which any changes observed in the survey are a result of COVID-19 restrictions (either on the survey design or on the behaviour of respondents).

Key findings

In 2021:

- Almost three quarters (71%) of Scottish adults have seen or read about Scottish forests, woods or trees on television, radio or in newspapers in the last 12 months.
- Nearly all respondents (99%) believed that there was at least one benefit of forestry worth supporting with public money.
- 88% of respondents agree or strongly agree that 'trees are good because they remove carbon dioxide from the atmosphere and store it in wood'. 95% of respondents agree or strongly agree that 'more information should be provided about the ways in which wood can be used to lessen our impact on the environment'.
- 21% use wood as fuel in their home. Of those who don't, 71% did not consider wood fuel to be practical for their property.
- 86% of respondents have visited forests or woodlands in the last 12 months. Around one third (35%) reported an increase in the number of visits they made in the last 12 months.
- Almost two thirds of respondents (63%) would like to see more woodland in their part of Scotland.
- On tree health, 83% agree or strongly agree that 'everyone should take action when visiting woodlands to help prevent the spread of damaging tree pests and diseases' and 83% 'would be willing to look out for and report sightings of pests and diseases on trees, if appropriate information and advice was available to [them]'.
- On urban trees, almost three quarters of respondents (74%) would be prepared to raise concerns with the Local Authority if they noticed a problem

with urban trees and 70% would be prepared to plant and tend trees in their garden or community residential area.

Forestry in the media

Respondents were asked whether they had seen or read about Scottish forests, woods or trees on television, radio or in the newspapers, in the last twelve months.

Almost three quarters (71%) of Scottish adults in 2021 recalled seeing or reading about at least one forestry topic in the media (Table 1). This represents a statistically significant increase from the 2017 survey (54%) and earlier years.

The most commonly identified topics were 'tree planting' (recalled by 49% of respondents), 'forests and woodlands as places to visit' (44%) and 'forests and woodlands helping to tackle climate change' (42%). There was a statistically significant increase in recall for most topics in 2021 from earlier years.

Table 1 Respondents who had seen or read about Scottish forests, woods or trees in the last 12 months

	percent of respondents				
	2011	2013	2015	2017	2021
Tree planting	19	18	17	26	49
Forests and woodlands as places to visit	18	19	14	25	44
Forests and woodlands helping to tackle climate change	12	11	9	18	42
Birds and other animals in woodlands	17	20	16	26	41
Community woodlands	9	11	10	19	35
Public rights of access to woodlands	22	16	13	21	33
Flowers and other plants in woodlands	7	8	8	14	32
Protests about roads or other developments on woodlands	13	10	8	15	29
Loss of ancient or native woodlands	12	12	10	14	29
Woods in and around towns, new local woods, improved local access	8	9	7	11	28
Restoration of ancient or native woodlands	10	11	8	16	27
Creation of new native woodlands	8	8	7	12	26
Tree pests and diseases	8	22	13	17	24
Wood for fuel, short rotation coppice	7	7	7	9	19
Labelling/certification of wood products	3	3	3	6	10
Other	3	1	1	2	2
At least one topic	48	50	37	54	71

Source: Scotland Public Opinion of Forestry Surveys.

Note:

1. Figures are based on all respondents: Weighted totals = 2011 (1,018), 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).
2. .. denotes data not available (statement not included in that year's survey).
3. Respondents could select more than one topic.

Benefits of forestry

The Scottish Government provides grants to plant new woodland and to manage existing woodland for public benefit. Respondents were asked to select, from a list of possible public benefits, good reasons to support Scottish forestry with public money.

Table 2 shows that, in 2021, 99% of respondents believed there was at least one benefit of forestry worth supporting with public money.

As in previous years, the top reason to support forestry in Scotland with public money was 'to provide places for wildlife to live', with 93% of respondents in 2021 selecting this as a benefit. 'To provide places for recreation' (92%), 'to help tackle climate change' (92%) were also seen as important reasons to support forestry with public money. There was a statistically significant increase in the level of support in 2021 from earlier years for all of the benefits listed.

Table 2 Reasons to support forestry with public money

	percent of respondents				
	2011	2013	2015	2017	2021
To provide places for wildlife to live	65	63	67	72	93
To provide places for recreation (i.e. walking, cycling, horse riding)	53	50	46	61	92
To help tackle climate change	46	42	46	60	92
To provide places for families to play	43	42	43	54	88
To provide places for learning	33	34	34	48	88
To improve the countryside landscape	48	50	48	58	86
To support the economy in rural areas	40	42	44	54	86
To provide places for relaxation and stress release	43	41	38	54	85
To improve the appearance of towns and cities	33	35	35	47	83
So that Scotland can buy less wood products from abroad	29	34	33	45	81
To restore former industrial land	26	29	29	37	78
To provide renewable energy including wood as fuel	34	37	40	47	73
To provide timber for sawmills and wood processing	25	31	29	37	72
At least one reason	91	89	89	95	99

Source: Scotland Public Opinion of Forestry Surveys.

Note:

1. Figures are based on all respondents: Weighted totals = 2011 (1,018), 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).
2. .. denotes data not available (statement not included in that year's survey).
3. Respondents could select more than one reason.

Climate change

Respondents were asked to indicate their level of agreement with two sets of statements related to woodlands and climate change.

Woodlands' impact on climate change

Firstly, respondents were asked about the ways in which forests and woodlands in Scotland can impact on climate change.

Table 3 shows that the highest levels of agreement in 2021, where respondents selected 'Strongly agree' or 'Agree', were with the following statements:

- 'Trees are good because they remove carbon dioxide from the atmosphere and store it in wood' (88%); and
- 'Planting more trees can help us cope with climate change by providing shade and reducing the effects of flooding' (86%).

The lowest levels of agreement in 2021 were with the following statements:

- 'Cutting down forests and woodland always makes climate change worse, even if they are replanted' (46%); and
- 'Using wood for fuel makes climate change worse because it releases carbon dioxide' (50%).

Table 3 Ways in which forests and woodlands can impact on climate change

percent of respondents who agree or strongly agree

	2011	2013	2015	2017	2021
Trees are good because they remove carbon dioxide from the atmosphere and store it in wood	77	72	78	84	88
Planting more trees can help us cope with climate change by providing shade and reducing the effects of flooding	69	66	72	78	86
Using wood for building is better for climate change than using materials such as concrete, steel and plastics	50	50	53	57	64
Using wood for fuel is better for climate change than using fuels such as coal and gas	50	52	54	56	64
Scotland could offset all its greenhouse gas emissions by planting more trees	51	47	46	54	63
Using wood for fuel makes climate change worse because it releases carbon dioxide	36	29	35	42	50
Cutting down forests and woodland always makes climate change worse, even if they are replanted	48	40	50	44	46

Source: Scotland Public Opinion of Forestry Surveys.

Note:

- Figures are based on all respondents: Weighted totals =
2011 (1,018), 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).

Forest management in response to climate change

Respondents were presented with a series of statements regarding the way in which Scottish forests and woodlands should be managed in response to the threat of climate change.

Table 4 shows that the majority of respondents agreed or strongly agreed that in 2021:

- 'More information should be provided about the ways in which wood can be used to lessen our impact on the environment' (95%);
- 'A lot more trees should be planted' (92%); and
- 'Different types of trees should be planted that will be more suited to future climates' (86%).

Conversely, few respondents agreed or strongly agreed that:

- 'There is nothing anyone could do that would make any difference' (7%); and
- 'No action is needed; let nature take its course' (16%).

Table 4 Management of Scottish forests in response to the threat of climate change

percent of respondents who agree or strongly agree

	2011	2013	2015	2017	2021
More information should be provided about the ways in which wood can be used to lessen our impact on the environment	80	79	81	87	95
A lot more trees should be planted	80	81	83	88	92
Different types of trees should be planted that will be more suited to future climates	67	70	73	81	86
No action is needed, Let nature take its course	19	20	16	18	16
There is nothing that anyone could do that would make any difference	12	15	13	10	7

Source: Scotland Public Opinion of Forestry Surveys.

Note:

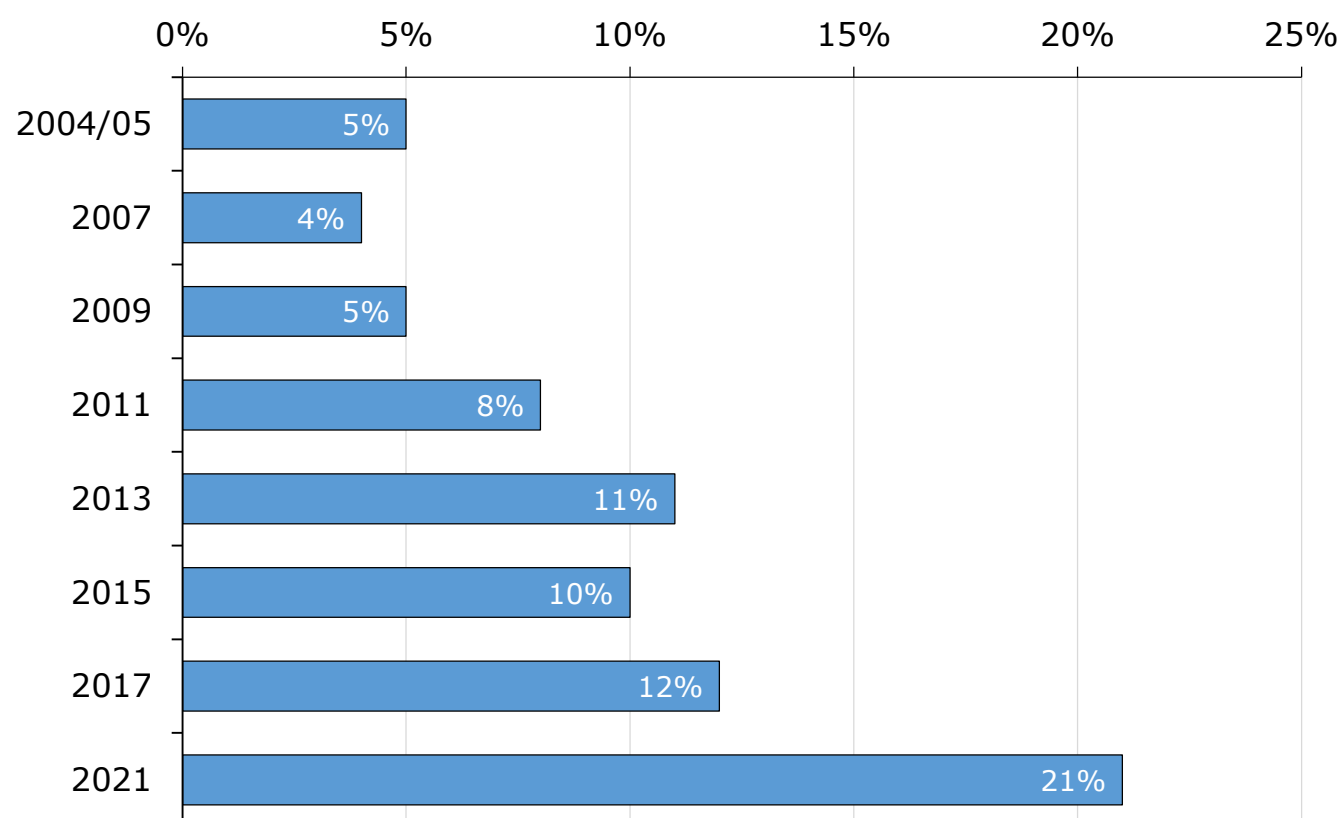
- Figures are based on all respondents: Weighted totals =
2011 (1,018), 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).

Wood as a fuel

All respondents were asked to state whether or not they use wood as a fuel in their home, either on its own or with other fuels. The question had been asked in the 2007 to 2017 surveys, and in a woodfuel consumption study in Scotland in 2004/05.

Over one in five respondents in Scotland (21%) reported that they use wood as a fuel (Figure 1). This represents a statistically significant increase from the results in previous years.

Figure 1 Use of wood as a fuel in the home



Source: Scotland Public Opinion of Forestry Surveys, Woodfuel Consumption Study 2004/05.

Note:

- Figures are based on all respondents: Weighted totals =
2004/05 (4,006), 2007 (1,007), 2009 (1,040), 2011 (1,018), 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).

Respondents who said they used wood as a fuel were asked three further questions. The following was reported in 2021:

- 19% of wood fuel users said they use wood as the main fuel for heating their home;
- 44% of those using wood as a fuel gathered it themselves, 28% bought it 'a few bags at a time' and 20% bought it 'by the truckload'.

Respondents who said they did not use wood as a fuel were asked to give the main reason why not. Table 5 shows that the most common reason cited by respondents who do not use wood as a fuel, either on its own or with other fuels, was 'Not practical for this property' (71%).

Table 5 Main reason for not using wood as a fuel in the home

	percent of respondents					
	2009	2011	2013	2015	2017	2021
Not practical for this property	48	64	59	52	56	71
Happy with the existing system	26	18	20	17	22	12
Never thought about it	16	4	4	6	4	6
Do not own property	5	6	9	17	10	3
All other responses	5	7	8	9	8	8

Source: Scotland Public Opinion of Forestry Surveys.

Note:

1. Figures are based on respondents who do not use wood as a fuel: Weighted totals = 2009 (992), 2011 (940), 2013 (887), 2015 (914), 2017 (889), 2021 (786).

Woodland visits

The survey asked respondents a number of questions about visits to woodland. This included how often the respondent would like to visit woodlands and the outdoors in the next 12 months, how often the respondent had visited woodland in the last 12 months, and type of woodland visited.

Latent demand for woodland visits

Respondents to the 2021 survey were asked to state how often they would like to visit woodlands and the outdoors in the next 12 months.

Nearly nine in ten respondents (88%) said that they would like to visit at least once a month, while 3% said they would not like to visit at all in the next 12 months (Table 6).

Table 6 How often respondents would like to visit woodlands in next 12 months

	percent of respondents				
	2011	2013	2015	2017	2021
Several times per week	16	20	19	23	50
Several times per month	25	26	25	28	25
About once a month	26	25	23	24	13
Less often	17	16	19	15	8
Never	16	13	14	10	3
Don't know	1

Source: Scotland Public Opinion of Forestry Surveys.

Note:

- Figures are based on all respondents: Weighted totals = 2011 (1,018), 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).
- .. data not available

Frequency of visits to woodland

Respondents to the 2021 survey were asked how often, on average, they had visited forests or woodlands for walks, picnics or other recreation in the previous 12 months.

Over one half (56%) of respondents in 2021 said they visited on average at least once a week (Table 7). This represents a statistically significant increase from the 2017 survey, when 32% of respondents reported visiting at least once a week in the previous 12 months.

Table 7 Frequency of visits to woodlands in last 12 months

	percent of respondents	
	2017	2021
More than once per day	2	3
Every day	6	13
Several times a week	13	26
Once a week	12	14
Once or twice a month	24	18
Once every 2-3 months	15	6
Once or twice	13	7
Never	16	13
Don't know	0	1

Source: Scotland Public Opinion of Forestry Surveys.

Note:

1. Figures are based on all respondents: Weighted totals = 2017 (1,013), 2021 (1,000).

86% of respondents to the 2021 survey have visited forests or woodlands in the last 12 months.

Table 8 Visits to woodland in last few years/ 12 months

percent of respondents

Year	%
2007	75
2009	57
2011	75
2013	76
2015	78
2017	84
2021	86

Source: Scotland Public Opinion of Forestry Surveys.

Note:

1. Figures are based on all respondents: Weighted totals = 2007 (1,007), 2009 (1,040), 2011 (1,018), 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).
2. Question wording changed in 2017, from asking about visits "in the last few years" to asking about visits "in the last 12 months".

A new question was introduced to the 2021 survey to find out about changes to the number of visits to woodland in the last 12 months (Table 9). Around one third of respondents (35%) reported an increase in the number of visits they made. A further 32% stated that the number of visits they made as was about the same as usual and 31% reported a decrease.

Table 9 Change in number of visits to woodland in last 12 months

	percent of respondents
	%
I have visited forests or woodlands more often than usual	35
The number of visits I have taken to forests or woodlands is about the same as usual	32
I have visited forests or woodlands less often than usual	31
Don't know	2

Source: Scotland Public Opinion of Forestry Survey 2021.

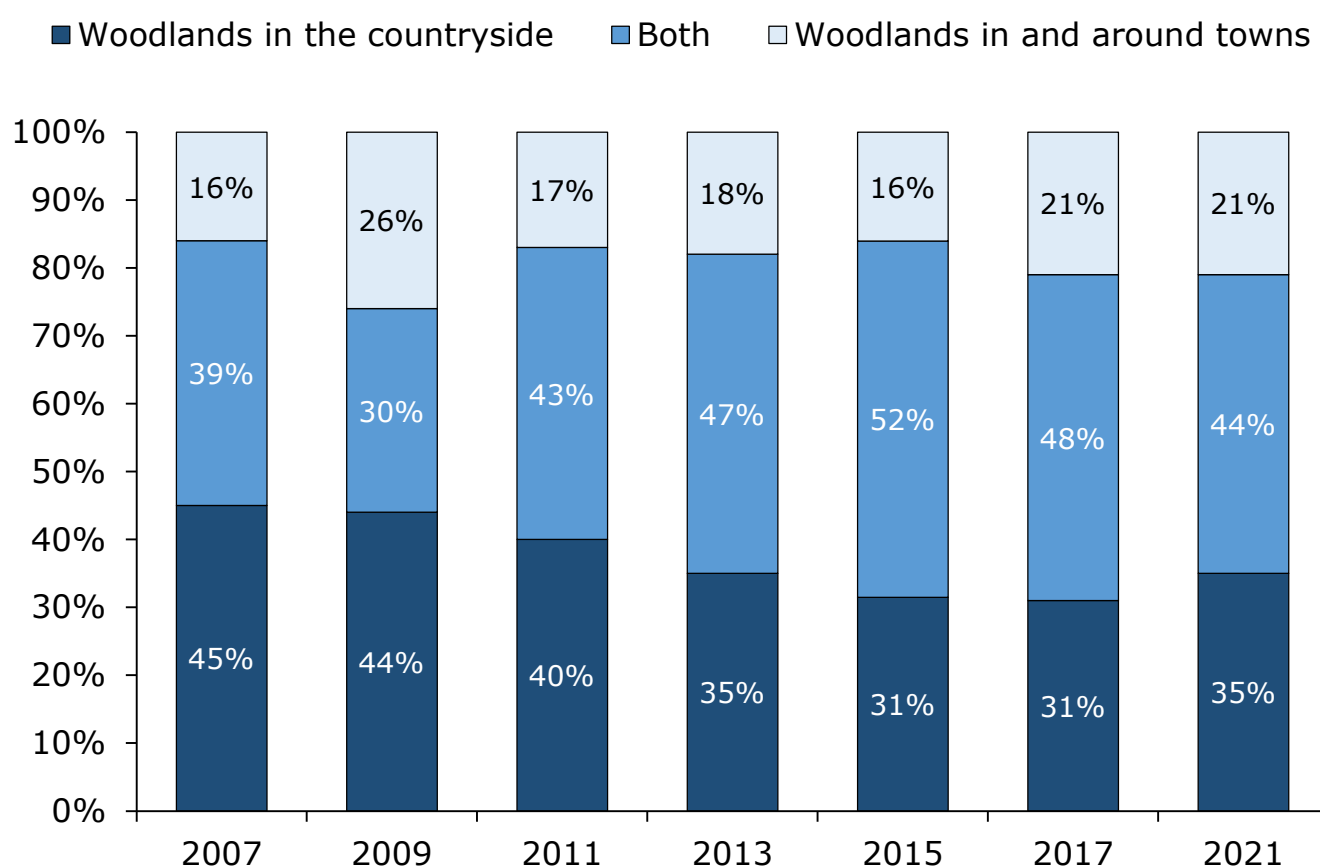
Note:

1. Figures are based on all respondents (1,000).

Type of woodland visited

Around one half of respondents (44%) to the 2021 survey who had visited woodland in the last 12 months reported visiting woodlands and forests in both the countryside and in and around towns. More respondents had visited woodlands in the countryside (79%, including those who had visited both locations) than had been to woodlands in and around towns (65%) (Figure 2).

Figure 2 Type of woodland visited



Source: Scotland Public Opinion of Forestry Surveys.

Note:

- Figures are based on respondents who had visited woodland in the last few years/ 12 months:
Weighted totals =
2007 (752), 2009 (589), 2011 (761), 2013 (764), 2015 (785), 2017 (851), 2021 (863).

Duration of visits

A new question was introduced into the 2021 survey to ask about the length of time spent on-site during the most recent visit to a forest or woodland.

Around 90% of respondents to the 2021 survey who had visited woodland reported that their visit lasted up to three hours.

Table 10 Time spent on-site during your last visit to a forest or woodland

percent of respondents

Length of time	%
<1h	16
1-2h	56
2-3h	18
4-5h	7
5-8h	1
8h or more	2

Source: Scotland Public Opinion of Forestry Survey 2021.

Note:

- Figures are based on respondents who had visited woodland in the last 12 months: weighted total = 863.

Activities during woodland visits

Respondents were asked about the activities they engaged in during their last forest or woodland visit.

Most respondents (92%) reported that they had been walking on their most recent woodland visit (Table 10).

Table 11 Activity engaged in during your last visit to woodland
percent of respondents

Activity	%
Walking	92
Running/jogging	7
Cycling	6
Horse riding	1
Swimming	1
Other	8

Source: Scotland Public Opinion of Forestry Survey 2021.

Note:

1. Figures are based on respondents who had visited woodland in the last 12 months: Weighted total = 863.
2. Respondents were able to select more than one option.

Respondents were then asked about the amount of time they spent on each activity (Table 11). Running or jogging tended to be the shortest activity, with around three quarters participating for one hour or less.

Table 12 Time spent on activities during your last visit to woodland

percent of respondents

Length of time	Walking	Running/ jogging	Cycling
1-15min	0	6	0
16-30min	7	27	4
31-60min	27	44	19
1-2h	45	16	47
2-3h	14	5	22
3-5h	6	0	6
5h or more	2	2	1

Source: Scotland Public Opinion of Forestry Survey 2021.

Note:

1. Figures are based on respondents who had participated in each activity: Weighted totals = Walking (794), Running/ jogging (57), Cycling (53).
2. Respondents were able to report time on more than one activity.

Health and wellbeing

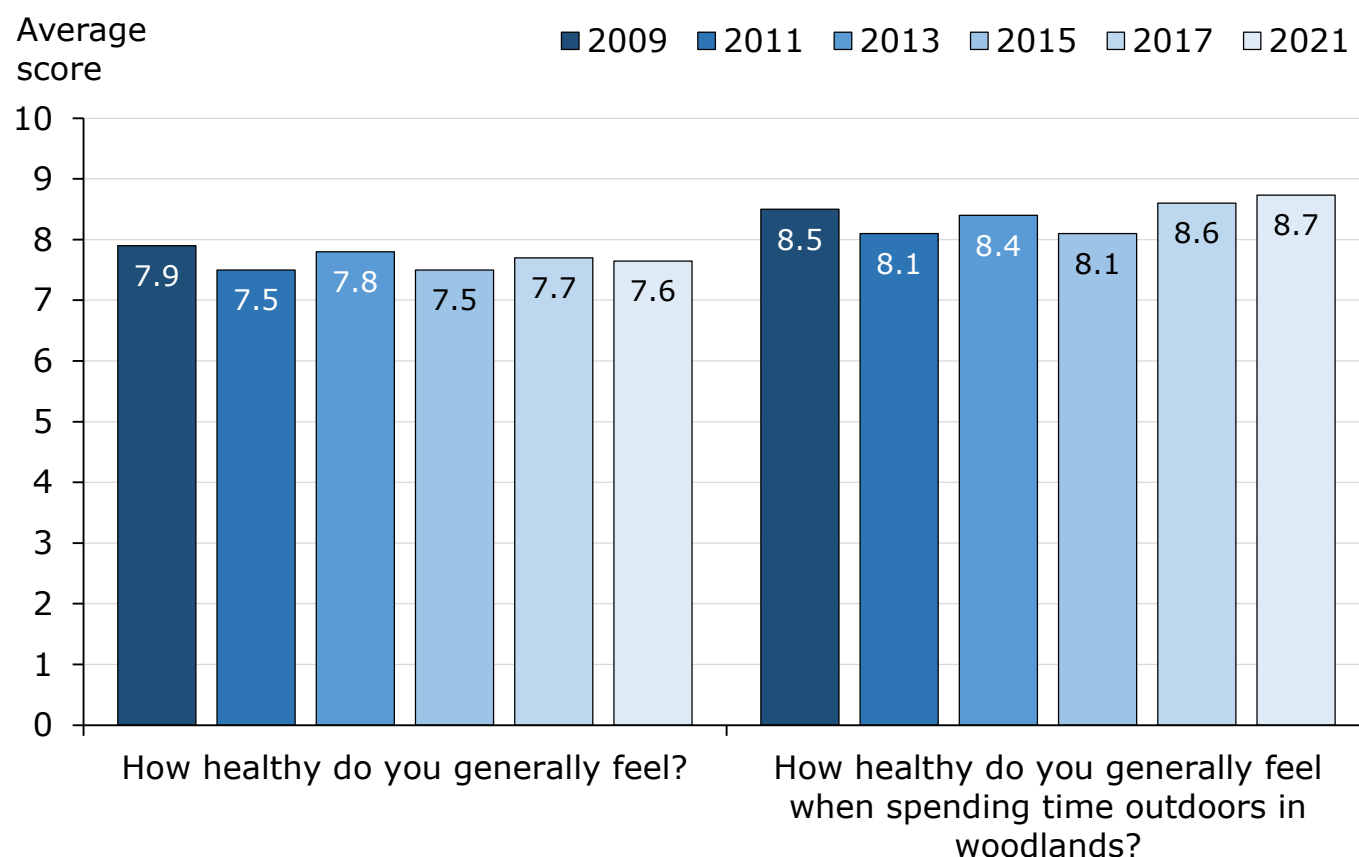
All respondents were asked about their health and wellbeing in relation to woodland visits.

Firstly, respondents were asked to rate the following on a scale of 1 to 10 (where 1 denotes not at all satisfied/ poor health and 10 denotes completely satisfied/ good health):

- their satisfaction with life;
- their general health;
- their health when spending time outdoors in woodlands.

For respondents who provided a score in 2021, the average score for satisfaction with life was 6.6 out of 10. Higher average scores were achieved for general health (7.6 out of 10 for those who provided a score) and for health when spending time outdoors in woodlands (8.7 out of 10) (Figure 3).

Figure 3 Health of woodland visitors



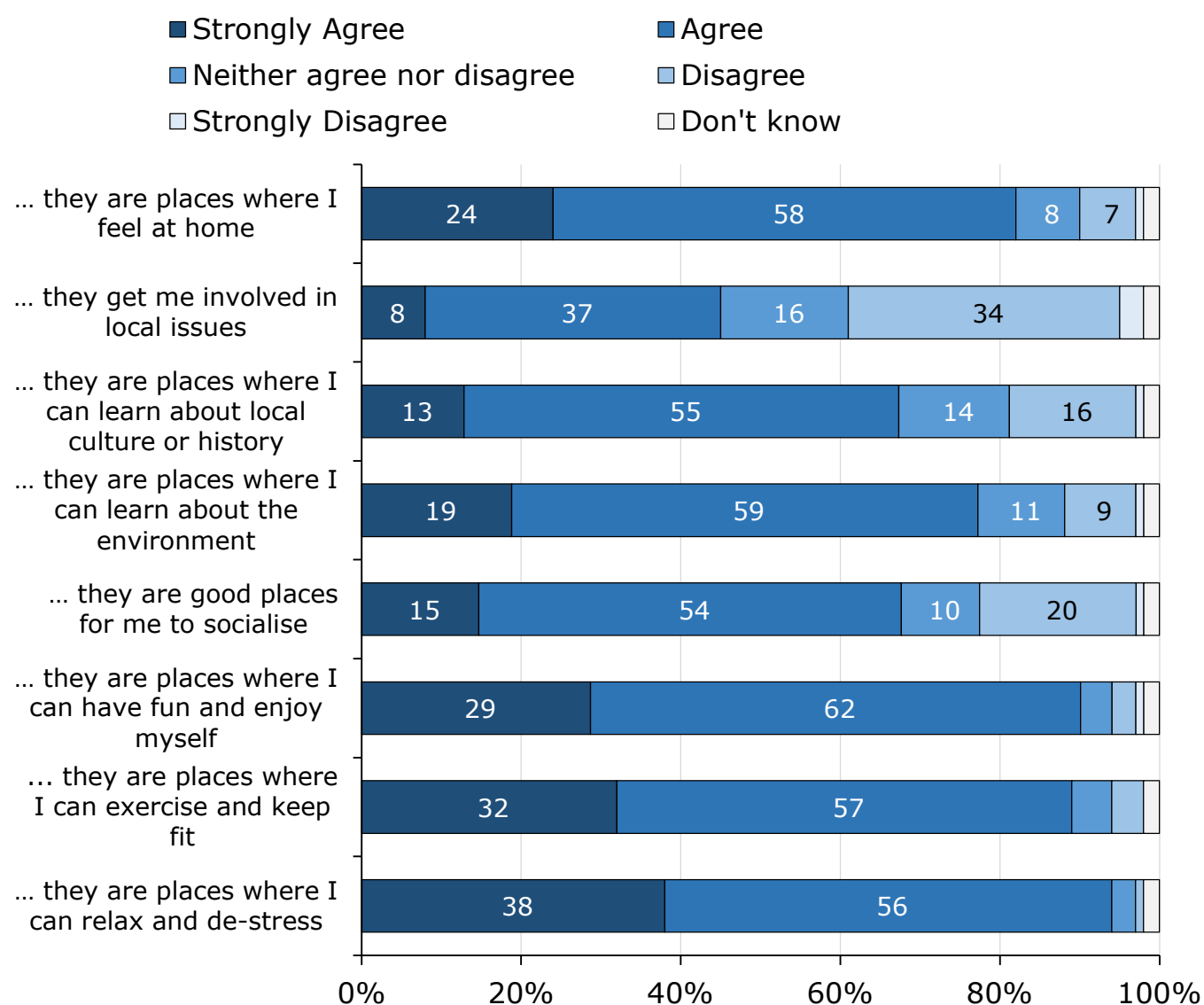
Source: Scotland Public Opinion of Forestry Surveys.

Note:

1. Figures for 2009-2017 are based on all respondents who had visited woodland in the last few years/ 12 months: Weighted totals = 2009 (589), 2011 (761), 2013 (764), 2015 (785), 2017 (851).
2. Figures for 2021 are based on all respondents (1,000).
3. Average scores have been derived excluding "don't know" responses.

Respondents were asked to indicate their level of agreement with a number of statements about the importance of woodland and forests to them. There were high levels of agreement (those selecting 'agree' or 'strongly agree') that woodland and forests are places where 'I can relax and de-stress' (94%), 'I can have fun and enjoy myself (91%) and 'I can exercise and keep fit' (89%).

Figure 4 Woodlands and forests are important to me because:



Source: Scotland Public Opinion of Forestry Survey 2021.

Note:

1. Figures are based on all respondents (1,000).

Respondents who had visited woodlands in the last 12 months were then asked about the aspects of their health and wellbeing that benefited from visiting woodlands and the outdoors. This covered:

- Physical health – through increased exercise and physical activity;

- Mental health – through relaxation, stress relief and improved mood; and
- Social health and wellbeing: through meeting other people/ spending time with people and/ or talking with family or friends.

The vast majority of respondents who had visited woodland said that they benefited from at least one of these aspects (98%), while almost two thirds (63%) said that they benefited from all three (Table 12).

Looking at the individual aspects:

- 91% felt their physical health had benefited by visiting woodlands and the outdoors;
- 92% felt their mental health had benefited; and
- 77% said their social health had benefited.

Table 13 Health benefits from visiting woodlands and the outdoors

	percent of respondents					
	2009	2011	2013	2015	2017	2021
Physical Health	89	85	87	89	87	91
Mental Health	86	85	83	89	88	92
Social Health and Wellbeing	69	69	75	73	73	77
All of these	64	56	60	64	62	63
None of these	2	4	4	3	5	2

Source: Scotland Public Opinion of Forestry Surveys.

Note:

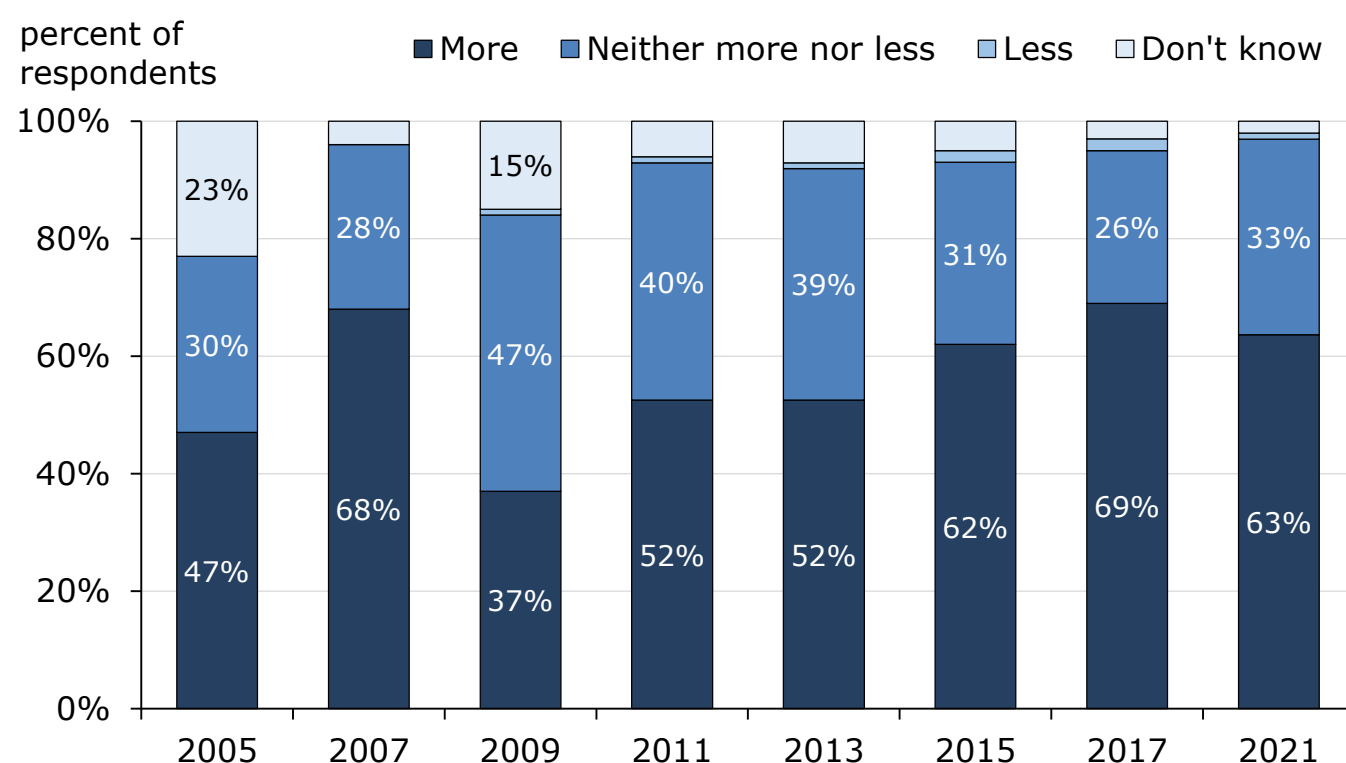
1. Figures are based on all respondents who had visited woodland in the last few years/ 12 months:
Weighted totals =
2009 (589), 2011 (761), 2013 (764), 2015 (785), 2017 (851), 2021 (863).
2. Responses for those who said they had benefited from 'all of these' have been included in the totals for 'physical health', 'mental health' and 'social health and wellbeing'.

Changes to woodland

Respondents were asked whether or not they would like to see more woodland in their part of Scotland. Almost two thirds (63%) of all respondents in 2021 said they would like to see more woodland in their part of Scotland (Figure 5). This represents a statistically significant decrease from the figure of 69% in the 2017 survey.

Around one third (33%) of respondents in 2021 reported that they would like to see 'neither more nor less' woodland in their part of Scotland. Only 1% said they would like to see less woodland.

Figure 5 Desire for change in woodland area



Source: Scotland Public Opinion of Forestry Surveys.

Note:

- Figures are based on all respondents: Weighted totals =
 2005 (1,009), 2007 (1,007), 2009 (1,040), 2011 (1,018), 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).

Respondents who had indicated that they would like to see more woodland in their part of Scotland were then asked a follow up question to find out where they thought any new woodlands should be created.

In 2021, three quarters of respondents (75%) who would like to see more woodland in their part of Scotland thought that new woodlands should be created in urban and industrial areas, over one half (53%) thought new woodlands should be created in uplands and almost one half (48%) reported intensively farmed areas as good location for new woodlands (Table 13).

Table 14 Location of new woodland

	percent of respondents					
	2009	2011	2013	2015	2017	2021
Urban and industrial areas	79	61	64	64	69	75
Uplands	37	38	41	50	50	53
Intensively farmed areas	28	26	25	35	36	48
Other	8	2	3	4	3	10
Don't know	2	10	9	9	6	5

Source: Scotland Public Opinion of Forestry Surveys.

Note:

1. Figures are based on all respondents who would like more woodland: Weighted totals = 2009 (389), 2011 (528), 2013 (521), 2015 (624), 2017 (695), 2021 (631).
2. Respondents could select more than one location.

Woodland learning activities

Respondents were asked whether they, or any member of their family, had attended any organised learning activities or events to do with woodlands in the last 12 months.

Table 15 shows that, in the previous 12 months, around one in six respondents (15%) to the 2021 survey said that they or a family member had attended an organised learning activity or event. In particular:

- 6% participated in another learning event;
- 5% had been on a school visit; and
- 5% had attended an event at a woodland visitor centre.

It is likely that the COVID-19 restrictions in place in the 12 month recall period resulted in a reduction to the number of organised learning activities available and the number of places on events for the most recent survey.

Table 15 Woodland learning activities attended in the last 12 months
percent of respondents

	2011	2013	2015	2017	2021
A school visit	7	7	9	11	5
An event at a woodland visitor centre	6	8	6	7	5
A guided walk or talk	4	5	5	7	4
Another learning event	2	3	2	3	6
Other	1	1	1	1	2
None of these	83	81	81	80	85

Source: Scotland Public Opinion of Forestry Surveys.

Note:

1. Figures are based on all respondents: Weighted totals =
2011 (1,018), 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).
2. Respondents could select more than one type of activity.

Tree health

Respondents were presented with a series of statements relating to tree health and asked to indicate their level of agreement. Table 16 and Figure 6 show that the majority of respondents agreed or strongly agreed that:

- 'Everyone should take action when visiting woodlands to help prevent the spread of damaging tree pests and diseases' (83% in 2021); and that
- 'I would be willing to look out for and report sightings of pests and diseases on trees, if appropriate information and advice was available to me' (83%).

Conversely, few respondents agreed or strongly agreed that:

- 'There is very little that anyone can do to prevent the spread of damaging pests and diseases' (17% in 2021); and that
- 'I understand what is meant by the term 'biosecurity'' (41%).

Table 16 Tree health

percent of respondents who agree or strongly agree

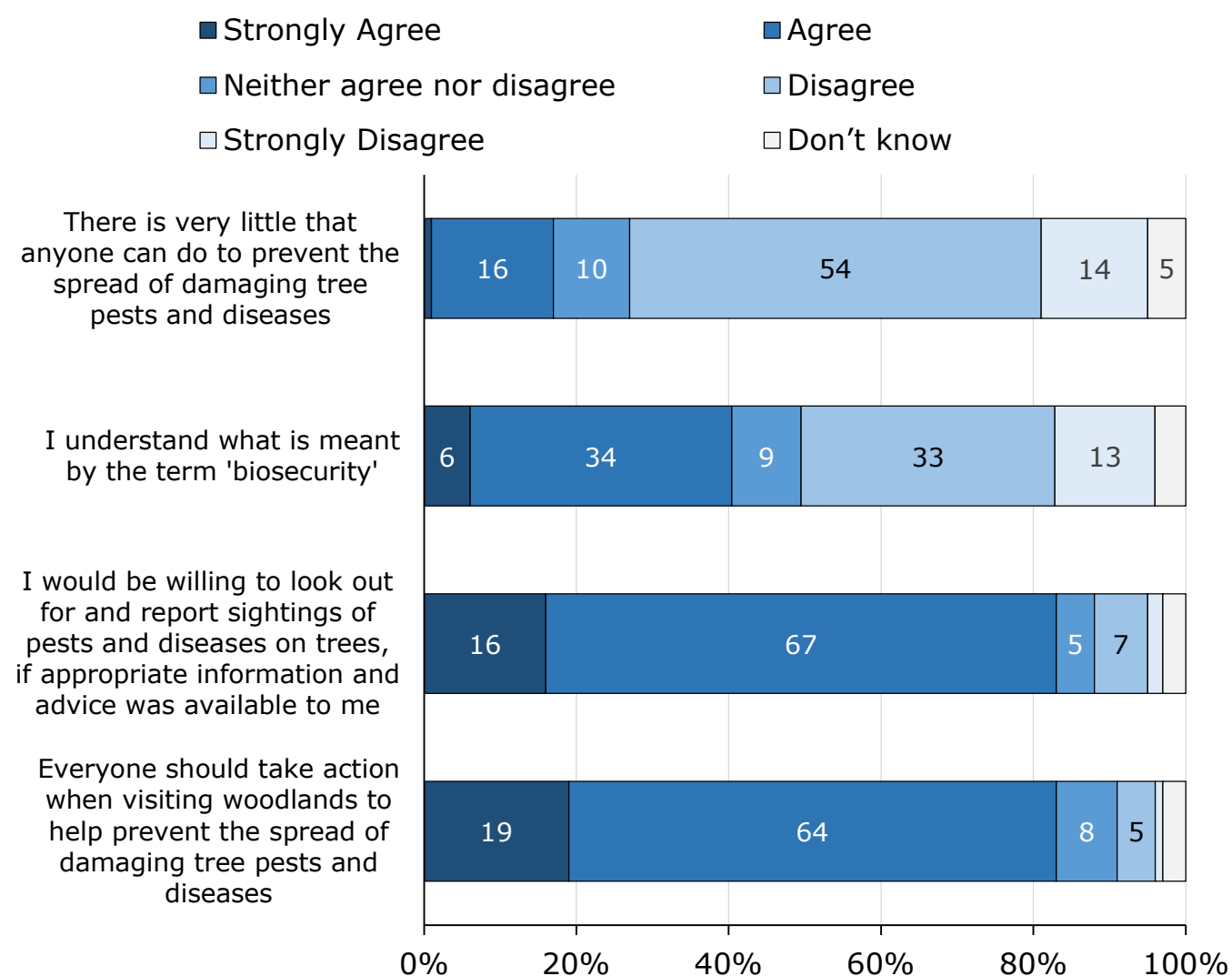
	2013	2015	2017	2021
Everyone should take action when visiting woodlands to help prevent the spread of damaging tree pests and diseases	68	69	72	83
I would be willing to look out for and report sightings of pests and diseases on trees, if appropriate information and advice was available to me	65	68	69	83
I understand what is meant by the term 'biosecurity'	30	34	36	41
There is very little that anyone can do to prevent the spread of damaging tree pests and diseases	21	17	14	17

Source: Scotland Public Opinion of Forestry Surveys.

Note:

1. Figures are based on all respondents: Weighted totals = 2013 (1,001), 2015 (1,010), 2017 (1,013), 2021 (1,000).

Figure 6 Tree health



Source: Scotland Public Opinion of Forestry Survey 2021.

Note:

1. Figures are based on all respondents (1,000).

Urban trees

In 2021 a question was added asking respondents if they would be prepared to support urban trees in various ways.

Almost three quarters (74%) of respondents would be prepared to raise concerns with the Local Authority if they noticed a problem with trees, and over two thirds (70%) to plant and tend to trees in garden or community residential area. (Table 17). Over one half (61%) would be willing to water newly planted trees in public areas during periods of dry weather.

Table 17 Willingness to support urban trees

Activity	percent of respondents	
	2017	2021
Raising concerns with the Local Authority if you notice a problem with trees	60	74
Planting and tending trees in your garden or your community residential area	56	70
Watering newly planted trees in public areas during periods of dry weather	55	61
Monitoring the health and condition of public trees	68	58
Participating in community planting programmes	51	58
Accepting higher council taxes which will be used for community tree programmes	34	47

Source: Scotland Public Opinion of Forestry Surveys.

Note:

- Figures are based on all respondents: Weighted totals = 2017 (1,013), 2021 (1,000).

Annex

Introduction

This annex provides background information on the statistics presented in this release. It covers the data sources and methodology used to produce the statistics, information on quality measures and on any revisions to historic data and links to further information.

Glossary

Biosecurity

A set of precautions that aim to prevent the introduction and spread of harmful organisms. These may be pests, pathogens or invasive species.

Clustering

A sampling technique where the entire population is divided into groups, or clusters, and a random sample of these clusters are selected. All (or a selection of) observations in the selected clusters are included in the sample. Cluster sampling is often used when a random sample would produce a list of subjects so widely scattered that surveying them would prove to be far too expensive.

Confidence interval

An estimated range of values that is likely to include an unknown population parameter (i.e. a fixed value for the population as a whole). The confidence interval around an estimate is derived from the sample data, and is used to indicate the reliability of the estimate.

Design factor

A factor applied in the calculation of confidence intervals to take account of the survey design (clustering, weighting, stratification) used in selecting the sample. A

design factor of 1.5 is commonly assumed by Market Research companies for omnibus surveys of the population.

Forest

In the United Kingdom, there is no formal definition of “forest”; the term is often used for large woodland areas (especially conifers) or for old Royal hunting preserves such as the New Forest or the Forest of Dean.

Forestry Commission (FC)

The government department responsible for forestry matters in England. The Forestry Commission's functions in Wales transferred to the Welsh Government and to Natural Resources Wales on 1 April 2013. The Forestry Commission's functions in Scotland transferred to Scottish Forestry and to Forestry and Land Scotland on 1 April 2019. The Forestry Commission is supported by two agencies; Forestry England and Forest Research.

Great Britain (GB)

England, Wales and Scotland.

Quota sampling

A method of sampling where interviewers are each given a fixed number of subjects of specified type to interview.

Scottish Government (SG)

The executive branch of the devolved government of Scotland.

Statistical significance

A statistical assessment of whether observations reflect an actual pattern rather than just chance.

Stratification

A sampling technique where the entire population is divided into groups, or strata, and a random sample is selected within each group. Stratified sampling is often used to ensure that sufficient numbers from each group are included in the overall sample, particularly where results are required for each group.

United Kingdom (UK)

Great Britain and Northern Ireland.

Urban trees

Trees and woodland located in towns or cities. Includes trees in urban woods, parks, gardens, streets and other urban areas.

Weighting

A set of factors assigned to survey responses to ensure that the resulting weighted results are representative of the population as a whole.

Woodland

Land under stands of trees with a canopy cover of at least 20% (25% in Northern Ireland), or having the potential to achieve this, including integral open space, and including felled areas that are awaiting restocking. Can exist in rural or urban settings.

Data Sources and Methodology

Background

Forest Research (and previously the Forestry Commission) has conducted surveys of public attitudes to forestry and forestry-related issues since 1995. The surveys have evolved since then as follows:

- In the initial surveys, a representative sample of 2,000 adults across Great Britain (GB) was surveyed;
- In 2001, with more interest in country-level results within GB, additional questions were asked of representative samples of 1,000 adults in each of Scotland and Wales;
- Information has also been collected for Northern Ireland in the past through UK wide surveys in 2003 and the separate Northern Ireland surveys (1,000 adults) carried out in 2005, 2007, 2010, 2014 and 2019;
- In 2021 three separate surveys were carried out for the UK, for Scotland and for Wales. Some questions were asked in all three of the surveys conducted in 2021, but a number of questions have become survey-specific.

All surveys run until 2019 were conducted using face-to-face interviewing. The restrictions in place across the UK in early 2021 as a result of the coronavirus pandemic led to a change in methodology for all 3 surveys. The 2021 survey in Scotland changed to use telephone interviews, whilst the surveys across the UK and in Wales changed to use an online methodology.

The table below is a summary of the previous surveys and presents the approximate number of adults interviewed for each country. England results are a subset of the UK survey.

Table A1: Sample sizes for Public Opinion of Forestry surveys since 2001

Approximate number of adults interviewed					
Year	UK ¹	England ²	Wales	Scotland	Northern Ireland
2001	2,000		1,000	1,000	
2003	4,000	3,400	1,000	1,000	
2005	4,000	3,400	1,000	1,000	1,000
2007	4,000	3,300	1,000	1,000	1,000
2009	2,000	1,700	1,000	1,000	
2010					1,000
2011	2,000	1,700	1,000	1,000	
2013	2,000	1,600	1,000	1,000	
2014					1,000
2015	2,000	1,500	1,000	1,000	
2017	2,000	1,800	1,000	1,000	
2019	2,200	1,800	1,000		1,000
2021	5,000	4,300	1,000	1,000	

Note:

1. 2001 and 2005 surveys covered Great Britain only (i.e. excluding Northern Ireland).
2. Results for England are derived from UK surveys.

Survey Design

The 2021 survey results presented in this report are taken from the Forest Research Survey Scotland carried out by Survation from the 1st to 21st March 2021. The survey was based on a representative sample of 1,000 adults (aged 16 or over) across Scotland. More details of the sample method are given below.

The 2003, 2007, 2011, 2013, 2015 and 2017 surveys were obtained from the TNS Scottish Opinion Survey. The 2005 and 2009 survey data were obtained from the

mrak Scottish In-Home Omnibus Survey. Both of these surveys used face-to-face interviewing.

Restrictions that were in place in early 2021 as a result of the Coronavirus (COVID-19) pandemic included limitations on people from different households meeting (particularly indoors). This meant that the 2021 survey could not be conducted using face-to-face interviewing, as had been used for previous surveys. The 2021 survey therefore used telephone interviewing. The change in survey design will have led to some inconsistencies with previous surveys, but it is not possible to quantify how much of the changes observed in 2021 are a result of adopting a different survey design and how much are a result of genuine change. Care should therefore be taken when comparing the results from the 2021 survey with those for previous years.

Methodology

The 2021 survey was undertaken using telephone interviewing and covered a mixture of landline and mobile telephones. A sample of 1,000 adult (age 16 or over) residents in Scotland was selected by quota sampling to ensure adequate coverage by age, sex and region within Scotland. For respondents unable to complete the survey by telephone as a result of hearing impairment or language barriers, an option to complete the survey online was provided.

Questionnaire

A copy of the 2021 questionnaire is provided at the end of this release. This covers the questions requested by Scottish Forestry. In addition, a small number of questions are included as standard in the omnibus surveys run by Market Research companies (e.g. gender, age, country/ region) and some of these are also used in analysing the results from the survey.

Most questions are retained from one survey to the next, to enable comparisons over time. However, changes are sometimes made to reflect changing

circumstances or priorities, or to improve the wording of questions. The following changes were made for the 2021 questionnaire:

- A new question (Q11) was added to ask about how the number of visits to forests or woodlands has changed in the last 12 months;
- New questions were added to ask about the duration of visits to forests or woodlands (Q12), the activities undertaken on the visit (Q13) and the time spent on each activity (Q14);
- A new question asking about satisfaction with life (Q15) was added;
- A new question was added to ask about the importance of woodlands and forests (Q18); and
- A question asking about physical activity in the last 4 weeks has been dropped.

Quality

Results from the Survation Survey are weighted to population profiles to ensure an accurate representation of Scotland's population. Weighting is applied on the basis of gender, age, and local authorities, using population estimates from Scottish Government official statistics. The results quoted in this report are based on weighted data.

All results are subject to the effects of chance in sampling, so a range of uncertainty (confidence interval) should be associated with any result from the survey. The confidence intervals take into account the effect of clustering, weighting and stratification in the survey design (see methodology, above, for more details).

The Survation Survey uses a quota sampling approach, which means that the likelihood of individuals within the population being interviewed cannot be measured. Any confidence intervals calculated are also indicative. Due to the

survey design, a 'design effect' of 1.5 should be applied to confidence intervals calculated for data from this survey.

Confidence intervals are most commonly reported at the 95% level. This means that there is a 95% chance that the true population value lies within the confidence interval. The following provides a guide to interpreting the results in this report on the basis of a 95% confidence interval and assuming a design factor of 1.5:

For questions asked to the whole Scotland sample of around 1,000, the margin of error should be no more than $\pm 4.6\%$.

For questions not asked of the whole sample and sub-groups within the sample, margin of error will increase. For example:

- By gender (male $n=481$; female $n=519$), the confidence intervals should be no more than $\pm 6.7\%$;
- For those who visited woodland in the last few years ($n=863$), the confidence interval should be no more than $\pm 5.0\%$.

For questions asked to whole samples, differences are statistically significant if more than:

- $\pm 6.6\%$ between the 2021 and 2017 surveys;
- $\pm 6.5\%$ between the 2017 and 2015 surveys;
- $\pm 6.6\%$ between the 2015 and 2013 surveys;
- $\pm 7.0\%$ between the 2013 and 2011 surveys;
- $\pm 7.0\%$ between the 2011 and 2009 surveys.

Revisions

Figures for 2021 are published for the first time in this release.

All figures are final. Figures for earlier years have not been revised.

Our revisions policy sets out how revisions and errors to these statistics are dealt with, and is available at www.forestresearch.gov.uk/tools-and-resources/statistics/about-our-statistics/code-of-practice/quality-of-official-statistics/

Further information

Accompanying tables to this release, available at www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/public-opinion-of-forestry/, provide more detailed figures, showing standard breakdowns.

Figures in tables have been independently rounded, so may not add to the totals shown.

Scotland's People and Nature Survey, carried out by TNS for Scottish Natural Heritage (now NatureScot), Forestry Commission Scotland (now Scottish Forestry), National Park authorities and Greenspace Scotland, ran in 2013/14 and included 4 questions specifically related to forestry. Results for these forestry questions were included in *Public Opinion of Forestry 2015, Scotland* and are available at www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/public-opinion-of-forestry/. Smaller-scale versions of the Scotland's People and Nature Survey were run in 2017/18 and 2019/20. Full results from all 3 surveys are available at www.nature.scot/professional-advice/land-and-sea-management/managing-access-and-recreation/increasing-participation/measuring-participation.

NatureScot has also commissioned research to provide an understanding of people's outdoor visit behaviour and engagement with nature during the Coronavirus lockdown. Reports from this research are also available from the NatureScot website.

Release schedule

The Scotland Public Opinion of Forestry is usually a biennial survey, next due to run in early 2023 with results likely to be available in summer 2023.

Official Statistics

This is an Official Statistics publication. For more information about Official Statistics and the UK Statistics Authority visit www.statisticsauthority.gov.uk.

Scotland Public Opinion of Forestry Survey 2021: Questionnaire

Q1 [All]

You may have seen or read about Scottish forests, woods or trees on the television, radio or in the newspapers. From this list, can you please tell me which of these topics you have seen or read anything about in the last 12 months?

(Multi answer)

- Birds and other animals in woodlands
- Flowers and other plants in woodlands
- Forests and woodlands as places to visit
- Community woodlands
- Woods in and around towns, new local woods, improved local access
- Tree planting
- Tree pests and diseases
- Wood for fuel, short rotation coppice
- Loss of ancient or native woodlands
- Restoration of ancient or native woodlands
- Creation of new native woodlands
- Public rights of access to woodlands
- Protests about roads or other developments on woodlands
- Labelling/certification of wood products
- Forests and woodlands helping to tackle climate change
- Other (specify)
- None of these

Q2 [All]

In Scotland, public money is given to plant new woodland and to manage existing woodland for public benefit. From this list, please tell me which of the following reasons are good reasons to support forestry in this way?

(Multi answer)

- To support the economy in rural areas
- To provide timber for sawmills and wood processing
- To provide renewable energy including wood as fuel
- So that Scotland can buy less wood products from abroad
- To help tackle climate change
- To provide places for wildlife to live
- To provide places for recreation (such as walking, cycling, horse-riding)
- To provide places for relaxation and stress release
- To provide places for families to play
- To provide places for learning
- To improve the countryside landscape
- To improve the appearance of towns and cities
- To restore former industrial land
- None of these

Q3 [All]

Would you agree or disagree with the following statements about the ways in which forests and woodlands in Scotland can impact on climate change?

(1 strongly agree, 2 agree, 3 neither agree or disagree, 4 disagree, 5 strongly disagree)

- Trees are good because they remove carbon dioxide from the atmosphere and store it in wood
- Cutting down forests and woodland for timber always makes climate change worse, even if they are replanted
- Using wood for fuel is better for climate change than using fuels such as coal and gas
- Using wood for fuel makes climate change worse because it releases carbon dioxide
- Using wood for building is better for climate change than using materials such as concrete, steel and plastics.
- Scotland could offset all its greenhouse gas emissions by planting more trees
- Planting more trees can help us cope with climate change by providing shade and reducing the effects of flooding

Q4 [All]

Do you agree or disagree with the following statements regarding how Scottish forests and woodlands should be managed in response to the threat of climate change?

(1 strongly agree, 2 agree, 3 neither agree or disagree, 4 disagree, 5 strongly disagree)

- There is nothing that anyone could do that would make any difference
- No action is needed; let nature take its course
- A lot more trees should be planted
- Different types of trees should be planted that will be more suited to future climates
- More information should be provided about the ways in which wood can be used to lessen our impact on the environment

Q5 [All]

Do you ever use wood as a fuel in your home, either on its own or with other fuels?

(Single answer)

- Yes (Go to Q6)
- No (Go to Q8)

Q6 [Ask if answered yes to Q5]

Is the wood the main fuel for heating your home, or do you mainly use something else?

(Single answer)

- main fuel
- something else (specify)

Q7 [Ask if answered yes to Q5]

Do you get the wood by the truck load, or a few bags at a time, or gather it yourself? (then go to Q9)

(Single answer)

- by the truck load
- a few bags at a time
- gather it yourself
- Other (specify)

Q8 [Ask if answered no to Q5]

What is the main reason that you do not use wood as a fuel in your home?

(Single answer)

- Never thought about it
- Happy with the existing system
- Not practical for this property
- Concerned about cost
- Concerned about efficiency
- Concerned about ease of use
- Concerned about environmental issues
- Do not own property
- Lack of local help/suppliers
- Other [specify]

Q9 [All]

How often would you like to visit woodlands and the outdoors in the next 12 months?

(Single answer)

- Several times per week
- Several times per month
- About once a month
- Less often
- Never

Q10 [All]

In the last 12 months, how often on average have you visited forests or woodlands for walks, picnics or other recreation?

(Single answer)

- More than once per day
- Every day
- Several times a week
- Once a week
- Once or twice a month
- Once every 2-3 months
- Once or twice
- Never

Q11 [All]

How has the number of visits you have taken to forests or woodlands changed in the last 12 months?

(Single answer)

- I have visited forests or woodlands more often than usual
- The number of visits I have taken to forests or woodlands is about the same as usual
- I have visited forests or woodlands less often than usual

Q12 [Ask if answer to Q10 is not 'never']

Did you visit woodlands in the countryside or woodlands in and around towns?

(Single answer)

- Woodlands in the countryside
- Woodlands in and around towns
- Both in the countryside and around towns

Q13 [Ask if answer to Q10 is not 'never']

How much time did you spend on-site during your last visit to a forest or woodland?

(Single answer)

- Less than 1 hour
- 1 – 2 hours
- 2 – 3 hours
- 4 – 5 hours
- 5 – 8 hours
- 8 hours or more

Q14 [Ask if answer to Q10 is not 'never']

Which of these activities did you engage in during your last visit?

(Multi answer)

- Walking
- Running/ jogging
- Cycling
- Horse riding
- Swimming
- Other – please state:

-
- None of the above

Q15 [Ask if answer to Q13 is not 'none of the above']

For each of the activities you engaged in on your last visit to a forest or woodland, how long did you spend on it?

(Single answer for each activity selected in previous question)

	1-15 minutes	16-30 minutes	31-60 minutes	1-2 hours	2-3 hours	3-5 hours	5 hours or more
Walking							
Running/ jogging							
Cycling							
Horse riding							
Swimming							

Q16 [Ask all]

Please answer the following question on the basis of your general feelings (not your present state). Overall, how satisfied are you with life nowadays on a scale of 0 to 10? 0 denotes not at all satisfied and 10 denotes completely satisfied.

How satisfied are you with life nowadays?

(Single answer)

0 1 2 3 4 5 6 7 8 9 10
Denotes not at all satisfied Denotes completely satisfied

Q17 [Ask all]

Please answer the following question on the basis of your general feelings (not your present state). How would you rate the level that best describes your general health on a scale of 1 to 10? 1 denotes poor health and 10 denotes good health.

How healthy do you generally feel?

(Single answer)

1 2 3 4 5 6 7 8 9 10
Denotes poor Health Denotes good Health

Q18 [Ask all]

How healthy do you generally feel when spending time outdoors in woodlands? 1 denotes poor health and 10 denotes good health.

(Single answer)

1 2 3 4 5 6 7 8 9 10
Denotes poor Health Denotes good Health

Q19 [Ask all]

Now thinking specifically about woodlands and forests you have visited and why they are important to you personally please tell me how strongly agree, agree, disagree or strongly disagree with the following statements Woodlands and forests are important to me because...

(1 strongly agree, 2 agree, 3 neither agree or disagree, 4 disagree, 5 strongly disagree)

- They are places where I can relax and de-stress
- They are places where I can exercise and keep fit
- They are places where I can have fun and enjoy myself
- They are good places for me to socialise
- They are places where I can learn about the environment
- They are places where I can learn about local culture or history
- They get me involved in local issues
- They are places where I feel at home

Q20 [Ask if answer to Q10 is not 'never']

What aspects of health and wellbeing do you feel benefit from visiting woodlands and the outdoors?

(Multi answer)

- Physical health: through increased exercise and physical activity
- Mental health: through relaxation, stress relief and improved mood
- Social health and wellbeing: through meeting other people / spending time with people and /or talking with family or friends
- None of these

Q21 [All]

Would you like to have more or less woodland in your part of Scotland?

(Single answer)

- More (Go to Q22)
- Neither more nor less (Go to Q23)
- Less (Go to Q23)
- Don't know (Go to Q23)

Q22 [Ask if answered 'more' to Q21]

Where do you think new woodlands should be created?

(Multi answer)

- Urban and industrial areas
- Intensively farmed areas
- Uplands
- Other (specify)
- Don't know

Q23 [All]

Have you and/or your family attended any of the following organised learning activities or events to do with woodlands in the last 12 months?

(Multi answer)

- A school visit
- A guided walk or talk
- An event at a woodland visitor centre
- Another learning event
- Other (specify)
- None of these

Q24 [All]

Would you agree or disagree with the following statements relating to tree health?

(1 strongly agree, 2 agree, 3 neither agree or disagree, 4 disagree, 5 strongly disagree)

- Everyone should take action when visiting woodlands to help prevent the spread of damaging tree pests and diseases (e.g. by removing soil & plant material from footwear, clothing, bikes, buggies and dogs before their visit).
- There is very little that anyone can do to prevent the spread of damaging tree pests and diseases.
- I would be willing to look out for and report sightings of pests and diseases on trees, if appropriate information and advice was available to me.
- I understand what is meant by the term 'biosecurity'.

Q25 [All]

Thinking about your nearest urban area (town or city) where you live or visit regularly, would you be prepared to support trees by...?

(Multi answer)

- Participating in community planting programmes
- Watering newly planted trees in public areas during periods of dry weather
- Accepting higher council taxes which will be used for community tree programmes
- Planting and tending trees in your garden or your communal residential area
- Monitoring the health and condition of public trees
- Raising concerns with the Local Authority if you notice a problem with trees
- None of the above

Alice Holt Lodge

Farnham
Surrey, GU10 4LH, UK
Tel: **0300 067 5600**

**Northern Research
Station**

Roslin
Midlothian, EH25 9SY, UK
Tel: **0300 067 5900**

**Forest Research in
Wales**

Environment Centre
Wales
Deiniol Road, Bangor
Gwynedd, LL57 2UW,
UK
Tel: **0300 067 5774**

info@forestresearch.gov.uk

www.forestresearch.gov.uk

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