Forest Research

# Fun and Fitness in the Forest

## Monitoring and evaluation of the three-year Active Forest pilot programme

Liz O'Brien and Jack Forster 2017


The Research Agency of the Forestry Commission

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# Executive summary

## Introduction

The United Kingdom is facing unprecedented public-health challenges as a result of physical inactivity, sedentary behaviour and obesity. Part of the solution to these challenges is to create easily accessible opportunities that enable people to sustain or increase their physical-activity. The Active Forest programme is one such approach.

Forestry Commission England (FCE) and Sport England (SE), in partnership, co-created the Active Forest (AF) pilot programme with the aim of encouraging physical activity and creating a sporting habit for life for visitors to the Public Forest Estate in England.

Five sites were chosen to run the pilot programme and an Active Forest Coordinator (AFC) was employed at each site to develop and promote physical activities.

A wide range of core activities such as running and cycling were developed along with a variety of events and new 'play on the day' activities that had not previously been trialled by FCE such as table tennis, volleyball, Gruffalo orienteering and football.

Monitoring and evaluation were critical elements of the programme and were embedded into it from the beginning. The partnership working between FCE and SE engendered a willingness to discuss methods, change approach, trial new methods and learn and adapt as the programme progressed. The first year of data gathering acted as a baseline before the AFCs were recruited and in post. Cannock Chase Forest importantly acted as a comparison site, as it did not have an AFC.

### Objectives of the Active Forest programme

| Sport England objectives | Forestry Commission England objectives |
|---|---|
| Generate 500,000 sporting visits | Inspire people to participate in enjoyable and high-quality sporting experiences on the Public Forest Estate and keep them participating regularly |
| Enable people to move to regular sports activity (i.e. once a week) | Focus on existing and new visitors to the public forest, targeting those who are less active |
| Reach out to those that are new to sport (i.e. have not participated in sport in the previous six months)<br><br>Involve the 14–25-year age group | Provide robust evidence to demonstrate effectiveness, learn lessons, confirm that the measurable participation outputs have been achieved |
| Test SE's ability to work with a new sector (outdoor), and explore issues of sustainability and scalability in new outdoor programmes | Ensure longevity beyond the funding period, by developing strong relationships with the aim of working with others to deliver activities in the forest in the longer term |

## Top 10 key results

1. There were a total of **700,097**[1] **sporting visits** over the three-year pilot, with a 246% increase in the number of visits in the third year versus the first (baseline) year of the programme. The AF sites showed an accelerating upward trend in the number of visits through time.

2. Less active individuals (sporting activity once a month or less[2]) made up 15% of the matched survey data[3]. There was a highly **significant increase in sporting activity** between completing the participant survey and the follow-on survey ($p<0.001$) in these individuals, with 49% of people moving to being active once a week or more than once a week.

3. Approximately 3%[2] of participants **were new to sport**, i.e. had not done sport in the previous six months.

4. The **beauty, scenery, wildlife, sensory and seasonal experiences, sense of freedom, getting away from everyday life, and atmosphere of the forest sites**[4,5] were key drivers for participants and greatly enhanced the experience of being active in nature.

5. **14%[2] were 14–25 years old**. Families being active together was important, with 33% of respondents[2] being accompanied by at least one child under 16 years (1,801 children recorded in total). The qualitative research[5] revealed significant benefits to women of undertaking activity in beautiful and family friendly forests.

6. The **main motivations**[4] for people to get involved in activities were to be **physically active in nature** (85%), **for enjoyment** (77%), **to get fit** (62%) and **to improve health** (61%). The qualitative research identified further motivations of undertaking a social activity, people wanting to challenge themselves, and having a choice of activities.

7. The **four key benefits**[4] identified by over 80% were:

    a. **Physical wellbeing**

    b. **Fun and enjoyment**

    c. **Mental wellbeing**

    d. **A feeling of escape and freedom**

    Mental wellbeing came out strongly as a theme in the qualitative research[5].

[1] From the operational throughput data
[2] Response refers to participant survey data (n=2,206)
[3] From the matched participant and follow-on survey (259 respondents matched across both surveys)
[4] From the follow-on survey (n=274)
[5] From the qualitative research (n=61)

8. The top five most **popular activities were cycling, running, orienteering, bat and racket sports, and fitness**[1]. All of these activities showed large positive increases in the number of visits across the pilot. Visits in the final year were at least 150% greater than those in the first year, aside from cycling. The popularity of Gruffalo orienteering demonstrates the importance of working with national sports governing bodies to develop fun forest-based activity.
9. 98%[2] expressed an interest in undertaking future physical activity in the participant survey. **91%[3] returned to woodland for activities within three months and 77% returned to undertake a different activity**.
10. **Active Forest Coordinators played a key role** in developing physical activity opportunities on their sites, increasing the numbers of people getting involved and gathering monitoring data. This is clearly shown by the use of Cannock Chase as a comparison site. **Volunteers** also played an important part in the programme.

# Main results

Further important results are outlined below.

## Visits, activity and practice patterns

The following range of activities were introduced as a direct result of the AF programme: Gruffalo orienteering, table tennis, volleyball, football, Nordic walking[6], fitness, climbing, cycle happy, wild running, run forest run, Stick Man games, GO TRI duathlon, parkrun and archery.

There was a large increase in orienteering visits from Quarter 2 2015/16 onwards, which was clearly driven by Gruffalo orienteering (99% of the increase in the third year versus the first-year baseline was due to Gruffalo orienteering).

There is clear evidence of parkrun driving the increase in running visits across the pilot, with parkrun visits rising by approximately 17-fold over the programme.

## Benefits of getting involved

Around half of respondents (47%) felt that they had contributed to the local economy. 68% enjoyed undertaking their activity with friends and family and 38% enjoyed meeting new people, 28% felt they learnt something new about woodland, while 27% learnt something new about the activity they were undertaking.

Sixty-one people involved in interviews or focus groups illustrate that:

- keeping fit in older age was important for women Nordic walkers;
- families ran together at parkrun and enjoyed the social engagement;

[6] A sport that involves walking with the aid of long poles.

- women mountain bikers found time for themselves, as well as acting as role models for activity for their children;
- GO TRI participants were motivated in middle age to become more active, often due to health reasons;
- orienteers enjoyed the mental and physical challenge of their activity.

The qualitative data[7] reveals key benefits identified by participants as: 1) mental wellbeing, 2) being active, 3) learning and developing, and 4) social connections.

## Benefits of activity in a forest environment

The qualitative research shows that the aesthetics of the forest environment were important to many participants who talked about the beauty of the sites and enjoying the scenery and wildlife. Participants also talked about the atmosphere of the forests, which included being away from everyday life, the forests being traffic free and the opportunity to be in the fresh air, and the sense of freedom this gave them.

> *'I thought I knew the forest but there's so many paths we go on, it's absolutely wonderful.' 'There are changes in the seasons, you're more observant of what is around you, you look and listen for things.'* (Female, Delamere Forest Nordic walking)

## Motivations and important qualities

The qualitative research revealed key life stages that could motivate the take up of activity (i.e. in late twenties/early thirties, when children have grown up, with health problems and lack of fitness identified in mid-life), or when it could be dropped (i.e. on leaving school, having children).

The important qualities needed for woodland activity were that the activity should be fun and enjoyable, there should be a good choice of paths, enough car parking, clean toilets and clear signposting – these were mentioned as quite or very important by over 80% of respondents.

## Evidence of behaviour: sustaining and changing

The Active Forest programme could impact on behaviour in four ways, by enabling: 1) the active to maintain and sustain their activities; 2) people to change activity levels; 3) people to try a new activity; 4) knock-on effects on friends, relatives or others.

Younger people were more likely to express an interest in future activities than older people; however, this trend was reversed for walking and Nordic walking.

Strong drivers predicting whether or not an activity was undertaken included the activity itself, followed by the forest site, frequency of activity and age.

[7] Focus group and interview data (full sample 61 respondents)

High impact aerobic activities (running, fitness) were more likely to be chosen as potential future activities by very active people, whereas more moderate impact activities (orienteering and archery) were favoured by individuals who carried out sporting exercise around once a month. Inactive individuals (no sporting exercise in the last six months) tended to be the least likely to express any interest in all future activities.

The qualitative data highlight the importance of AF activities enabling people to maintain their activities levels; there were also instances of significant behaviour change, people encouraging others to undertake activity or suggesting they had brought, or would bring, friends or family to a site, and the knock-on impacts of involving others.

> *'My son started mountain biking at school, 'cause he wanted to follow what I was doing.'* (Female, Bedgebury Forest Real Spin)

### Importance of volunteers

The qualitative data revealed the importance of volunteers for activities such as GO TRI, parkrun and orienteering. The National Governing Body interviewees also talked about the vital role volunteers play in running clubs, events and activities. Volunteers were also involved in some of the data gathering for the AF programme. The volunteers themselves talked about gaining a lot from their role:

> *'It's just something nice to do. It's nice to give back; it's lovely surroundings as well, so it's nice to spend time in the forest.' (Male volunteer, Sherwood GO TRI)*

## Key monitoring and evaluation lessons

The programme illustrates the critical importance of embedding monitoring and evaluation from the beginning. The monitoring and evaluation approach was adapted as the AF programme progressed as both SE and FCE were willing to learn from different approaches and adapt. Using Cannock Chase[8] as a comparison site, when its AFC left, provided an opportunity to assess the impact of the programme on the five sites, against a similar site not benefiting from the programme and having an AFC on site. The use of iPads to collect on-site participant survey data was trialled and then embedded across the five sites to add to response rates for the online survey. Ensuring the online survey is promoted via social media on a regular basis was identified as important. Monitoring and evaluating a complex programme such as AF and ensuring consistency of data collection across the sites was challenging. It was easier to gather data from organised events and activities than those that are self-led. Showing attribution of change directly to the programme was also an ongoing challenge.

[8] FCE manage Birches Valley Forest Centre at Cannock Chase.

# Conclusions

- The AF programme shows the contribution that physical activity in attractive forests can make to all five of the broad outcomes identified in the Government's 'Sporting Future' strategy of physical wellbeing, mental wellbeing, individual development, social and community development, and economic development.
- The AF programme met SE's key targets and contributed both to helping people sustain physical activity behaviours and change behaviour by becoming more active, as well as having knock-on impacts of encouraging and enabling others to get involved.
- The programme helped to meet FCE objectives of building valued relationships with partners such as SE, providing quality experiences in beautiful locations and engaging loyal customers and new ones.
- There was strong consistency over the pilot programme in terms of the key motivations and benefits people gained from physical activities in forests.

The key factors (Figure 1) that combined to enable the pilot programme to be successful and which led to wellbeing outcomes included: the size and attractiveness of the forest sites, the governance of the programme, the range of activities on offer, and the AFCs being able to reach out and target a diversity of people.

Figure 1: Key factors of importance for the Active Forest pilot programme.

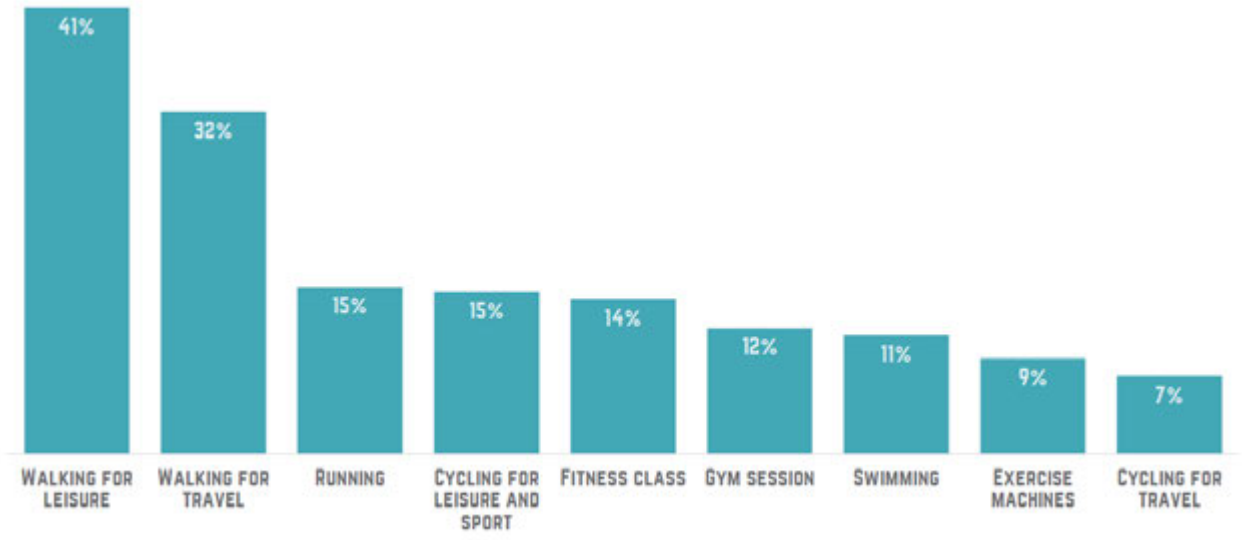
# 1. Introduction

The Government's (2015) recent strategy 'Sporting Future' outlines that it is redefining what success in sport looks like by focusing on five broad outcomes: 1) physical wellbeing, 2) mental wellbeing, 3) individual development, 4) social and community development, and 5) economic development. This illustrates that sport and physical activity can play an important role in these outcomes and deliver a broad range of social benefits for the nation. The framework for this strategy outlines the need to encourage more people from every background to take part in sport and physical exercise, and volunteering.

Sport England's new strategy (2016) focuses on how the above policy can be put into practice with a target of tackling inactivity, focusing on children and young people, helping those who are currently active to continue this, and reaching out to groups currently under-represented in sport. Sport England's remit on physical activity has also been extended to include walking for leisure and dance. The strategy includes reference to the relationship established with Forestry Commission England.

Sport England's Active Lives Survey (2016) shows that while 60.7% of people are meeting the Chief Medical Officer's recommendation of undertaking 150 minutes or more of physical activity per week, 13.7% are fairly active doing 30 to nearly 150 minutes, but 25.6% are inactive and are doing less than 30 minutes per week, and are classed as sedentary. Activity levels decrease as people get older; they are lower for the disabled and for those of lower socio-economic status. Figure 2 illustrates that walking for leisure and travel are the most widely undertaken forms of physical activity.

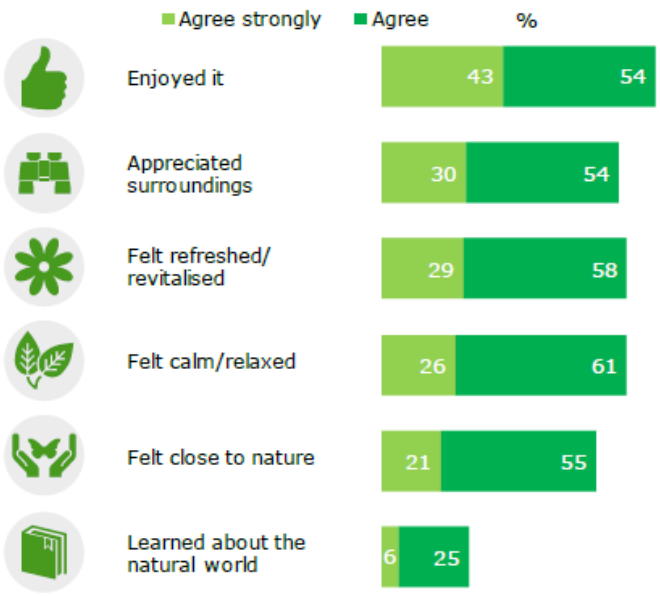
Figure 2: The proportion of adults taking part in popular activities (taken from Sport England Active Lives Survey, 2016).



NHS Digital (2017) provides a range of facts about obesity, physical activity and diet. It highlights that the proportion of boys and girls who meet the physical activity guidelines has increased from 21% in 2012 to 23% in 2015 for boys, and from 16% in 2012 to 20% in 2015 for girls. The report also identifies that Asian, Black and Chinese ethnic groups are more likely to be inactive than White and Mixed ethnic groups. Overall, 58% of women and 68% of men were categorised as overweight or obese.

A survey that monitors visits to nature and activities in nature (Natural England, 2015) shows that in 2014/15 76% of visits to nature were people walking, or walking with a dog. Walking was the most commonly undertaken activity. One in ten visits included playing with children. Parks in towns and cities were the most visited nature space, by 26% of the population (827 million visits); paths, cycleways and bridleways were used by 15% (456 million visits); woodlands and forests were the third most commonly used space, visited by 13% (417 million visits). In all, 44% of the population has visited nature once in the past seven days (19 million visits). This includes visits to greenspaces in towns and cities, the countryside and coastline. The outcomes of people's visits are those shown in Figure 3.

Figure 3: Outcomes of visits to nature (taken from Natural England, 2015)

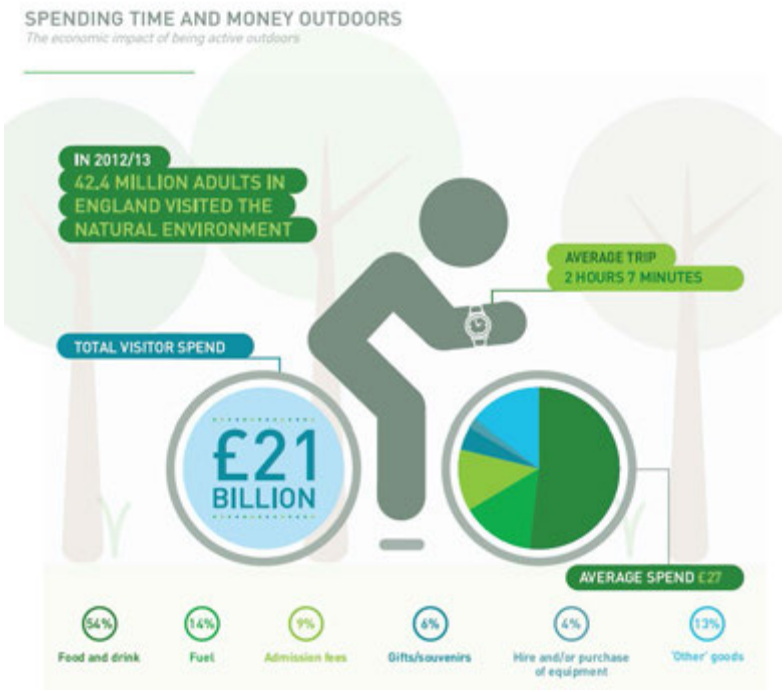



The Getting Active Outdoors study by Sport England and the Outdoor Industries Association (2015) highlighted that the key motivating factors for being active outdoors were to spend time with family, to have fun with friends, to try an alternative to traditional sport, to enjoy the scenery and to be close to nature, to enjoy fresh air and the weather, and to relax and destress and get away from modern life.

A recent survey of over 11,000 people concerning off-road cycling (Cycling UK, 2017) found that 87% were men, a third were 40–49 years of age, 60% had no children and the average income was 50–100k. Forestry Commission England land attracts the most riders, most often; with broadleaved woodland enjoyed a lot by 78% and coniferous woodland by 63%. Woodlands are more popular for off-road cycling than moorland, heathland, coast, riverside and canals, and farmland. Women were more likely than men to rank enjoyment of nature equal top with health, whereas 32% of men stated their top motivation for off-road cycling was health followed by enjoyment of nature (17%).

The contribution of outdoor activity to the economy is increasingly acknowledged as important. The Sport and Recreation Alliance in its report 'Reconomics' (2015) uses data from the Natural England survey to illustrate the economic impact of outdoor recreation, which is considerable (Figure 4).

Figure 4: Spending time and money outdoors (source: Sport and Recreation Alliance, 2015)




A Forestry Commission England and Forest Research briefing note (O'Brien, 2014) outlines the role of the Public Forest Estate, in England, in helping to tackle physical inactivity. This can be done through using forests as prevention, forests on prescription, forests as part of a therapeutic recovery programme, learning on the move (i.e. education in woodlands), and sports and physical activity interventions in forests. This background context, of the importance of outdoor physical activity, provides the setting for the Active Forest programme co-created through a partnership between Sport England and Forestry Commission England; and its impact is the focus of this report.

# 2. The Active Forest programme

Sport England and Forestry Commission England joined together in a partnership to create the Active Forest programme. Funding was provided by Sport England with kind support and further funding from Forestry Commission England. The overall outcome of the pilot three-year Active Forest programme, which started in 2014, was:

> *'To create a sporting habit for life for visitors to the Public Forest Estate in England'*

With the aim of:

> *'Providing engaging, inspirational and motivating sports activities for new and existing customers'*

Targets for the programme were as follows:

1. To generate 500,000 sporting visits
2. To encourage people to move to regular sports activity (i.e. once a week)
3. To reach out and attract those that are new to sport (i.e. have not participated in sport in the previous six months).

Forestry Commission England (FCE) and Sport England (SE) entered into a partnership to deliver the pilot programme focused on five public forest sites in England:

1. Thetford Forest (High Lodge)
2. Bedgebury Forest
3. Sherwood Pines Forest Park
4. Delamere Forest
5. Dalby Forest.

Cannock Chase Forest was to be included as an Active Forest site and for a short time had an Active Forest Coordinator. The coordinator left and it was decided the site would not continue as part of the Active Forest (AF) programme, but baseline throughput data continued to be collected at Cannock. In the monitoring and evaluation of the Active Forest programme Cannock acts as a comparison (i.e. not receiving the intervention) site to the five main sites outlined above.

All five of the FCE sites are 'destination sites' – these are usually larger in size and used by a mix of local residents and visitors who travel from further afield. People, particularly visitors from further afield, often visit less frequently (a few times a month or a few times a year) but stay longer at the sites which have facilities, such as cafés and toilets.

Events and activities will be organised at these sites and they will often get high numbers of visitors, particularly in school and public holidays (O'Brien *et al.*, 2014).

The governance of the AF programme was as follows: A programme manager oversaw the programme and reported to the AF board, which was made up of the programme manager, SE representatives, FCE site/district managers for each of the five sites, and Forest Research. A key element of the programme was the employment of an Active Forest Coordinator (AFC) for each site. These posts were primarily part-time, the role of the AFC was to facilitate delivery of the programme, collect monitoring and evaluation data, and promote the programme. Dalby Forest undertook a slightly different approach by creating a job share for the AFC role with a member of FCE staff working two days a week, and a member of North Yorkshire Sport also working two days a week on the programme. AFCs were recruited in early 2015 to be in post in order to start their work for the financial year 2015/16. Therefore the data gathered in 2014/15 acts as a baseline to activities before the main work of the AF programme got under way.

A key approach to the AF programme was not to have the AFCs running events and activities but for them to engage with and enable third-party providers[9] to set up and run activities on site, and to ensure the providers gave information to the AFC on the numbers attending events and activities. The AF programme aimed to encourage an increase in core activities (e.g. running and cycling), to continue and create new events (e.g. GO TRI) and develop 'play on the day' (POD) activities (e.g. table tennis, volleyball).

The original programme targets set by Sport England included the following:

- Total **throughput – 500,000 sporting visits**
- Of this total – **120,000** will be **new to regular sports activity** (regular defined as a minimum of 30 minutes strenuous sports activity once a week)
- Of this total – **24,000** will be **new to sport** (those who have not participated in sport in the previous six months).

Sport England also wanted more 14–25-year-olds engaged in sport. The targets were adapted as the AF programme progressed, with the sporting visits target remaining (i.e. 500,000 sporting visits), but instead of identifying numbers of those new to regular sport and new to sport, Sport England agreed that these targets could change to focus on getting a proportion of 5–10% to become more regularly active. This change was in recognition of the difficulty of scaling up survey responses of individuals to the total number of sporting visits which included people who were repeat visitors, so could not be classed as separate individuals.

[9] A third-party provider is an individual, volunteer, club or organisation that delivers an event or activity on an FCE forest site.

FCE's objectives were to:

- inspire people to participate in enjoyable and high-quality sporting experiences on the Public Forest Estate and keep them participating regularly;
- focus on existing and new visitors to the public forest, targeting those who are less active;
- ensure longevity beyond the funding period, by developing strong relationships with the aim of working with others to deliver activities in the forest in the longer term;
- provide robust evidence to demonstrate effectiveness, learn lessons and confirm that the measurable participation outputs have been achieved.

# 3. Monitoring and evaluation of the Active Forest pilot programme

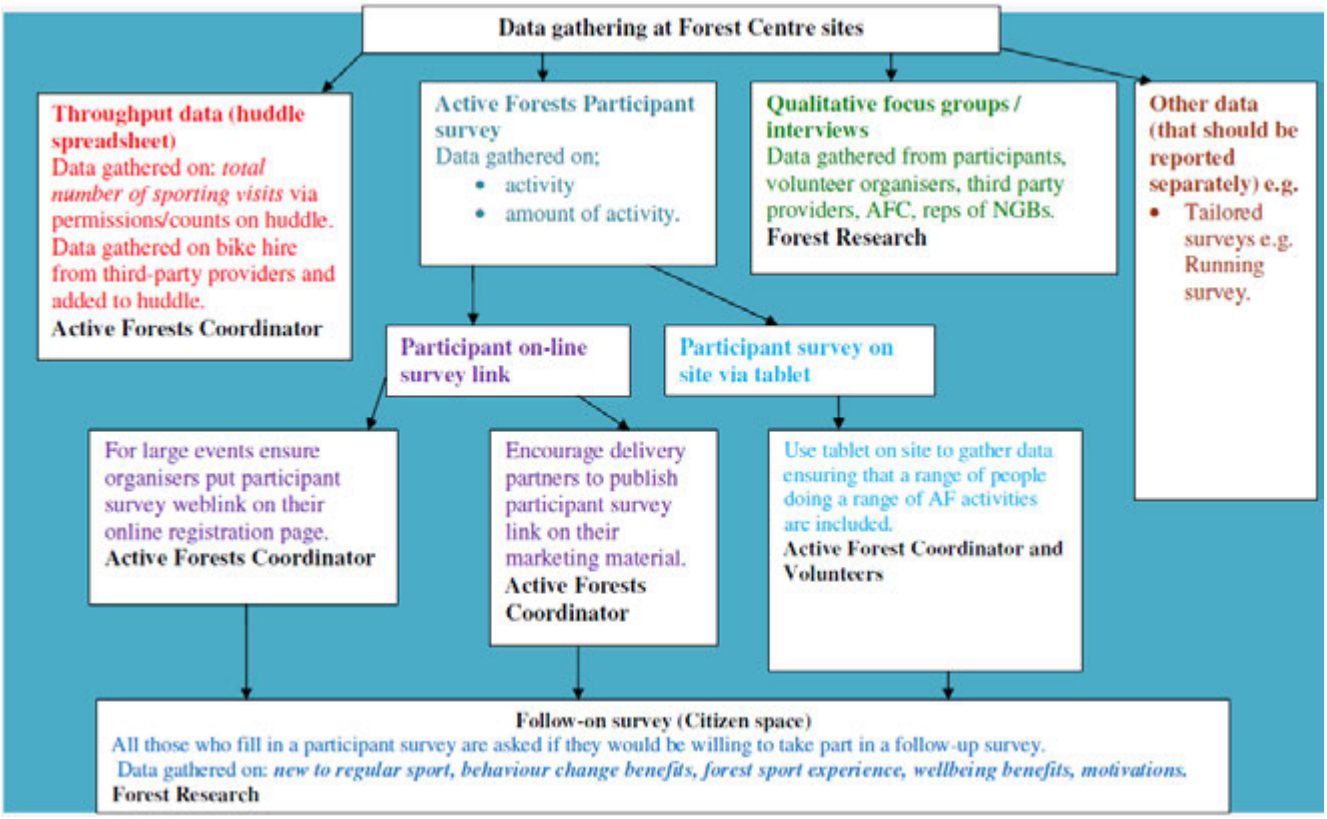
A key aspect of the AF programme was monitoring and evaluation (M&E). FCE and SE wanted to learn from the programme, and the pilot lasted three years. The first year (2014/15) involved development of the partnership between FCE and SE, identifying and advertising the AFC posts, setting up the monitoring and evaluation approach, and starting data gathering. In the second year (2015/16) the AFCs were in post and were able to start developing the programme for each site. In the third year (2016/17) one of the AFCs left at the beginning of the calendar year; however the site (Thetford), via other staff, was able to continue gathering monitoring and evaluation data. The programme manager role was reduced from full-time to part-time at the beginning of January 2016, due to support needed elsewhere within FCE, and another person was recruited three days a week to support the now part-time programme manager. In December 2016 three of the AFC contracts came to an end, leaving only one AFC in place who was an existing employee of FCE.

The aim of the pilot programme was to identify what worked and what did not work and to adapt and change the programme. The M&E played an important role in supporting the learning and adaptation of the programme. Also, lessons were learnt and approaches tried in terms of M&E data gathering. Figure 5 provides an overview of the data gathering for the M&E and more detail is given in section 4 on the methods used. This figure shows the role of the AFC in helping to gather data. The research questions for the evaluation were:

- what types of sporting activities are undertaken and enjoyed in forests as part of the Active Forest programme and by whom?
- how many of those participating are new to regular sport, new to sport and how many are in the 14–25 age range?

- are there added or differing benefits of undertaking sporting activities in forest environments as opposed to more traditional sporting venues such as leisure centres, sports fields/tracks?
- is there evidence of positive and sustained behaviour change and any perceived health and wellbeing benefits being realised from participating in the AF programme, if so what are these changes and benefits?

Figure 5. Data gathering elements for the M&E of the Active Forest pilot programme




## 3.1. Contact cards and the Bedgebury data trial

Different approaches were tried in terms of M&E data gathering. For example, at the start of the programme a contact card (the same size as credit card) was designed with the aim of promoting and encouraging participants to go online and complete a short participant survey; an incentive of a prize draw was offered to encourage completion (Figure 6). The cards were given out by AFCs at events and activities or placed into event 'goody' bags. It became clear that although many thousands of contact cards had been given out in the first six months or more of the programme, this was not translating into acceptable numbers completing the survey.

Consideration of other approaches led to the development of the Bedgebury data trial and the use of an iPad by the AFC to gather data directly from participants on site when

they were starting or ending their activity; Quench Cycles (a company based at Bedgebury hiring out bikes and leading cycle rides on site) actively supported the trial by getting many who were hiring bikes to complete the survey. Data could be collected on the iPad and when a network connection was gained the data were uploaded to a 'cloud' and then transferred to the FCE's marketing system.

The use of an iPad was seen as a successful contribution to on-site data collection, which could be coupled with the online survey data gathering via the weblink. An iPad was purchased and used for each of the five AF sites. Advice was given by Forest Research to AFCs to try and ensure that a range of activities, events and people were sampled and included in the data gathering, rather than try and focus on a single event and get as many to fill in the survey as possible. AFCs also publicised the survey link via Facebook and encouraged third-party providers running various activities to add the link to their website/Facebook or event page.

Figure 6. Front and back of the contact card – used to encourage people to fill in a short participant survey


# 4. Methods

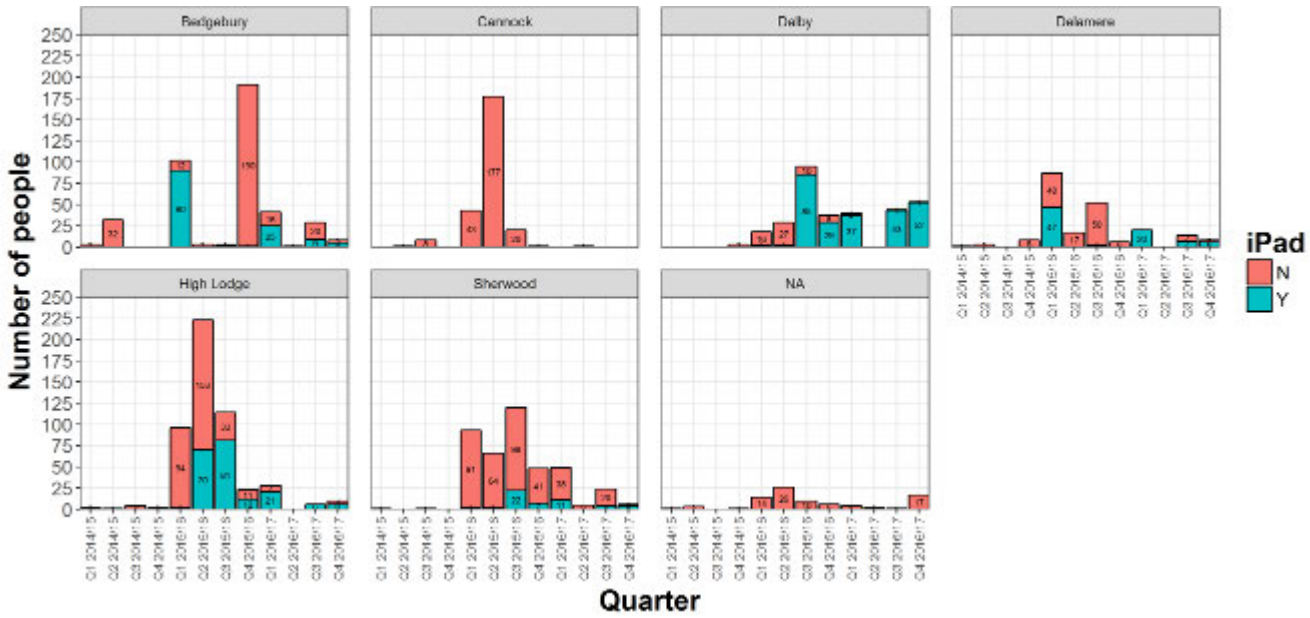
A mixed-methods approach was developed for the evaluation, including quantitative trend data, gathered on the number of activities, a participant survey and follow-on survey, and qualitative data gathering with small groups *in situ* in the forest and interviews (see Table 1 for numbers involved). The methods were as follows:

**Operational throughput data** – each of the AFCs kept a record of the events and activities undertaken as part of the AF programme. The data were kept on a spreadsheet on Huddle (which is an online workspace for collaboration and data sharing) and included the type of activity, date of activity, numbers involved, whether it was a new activity to the site and the provider of the activity. If the activity or event was organised by a third-party provider, the AFC would ensure that the provider gave the number of people

involved in the event. Those who wish to run events or activities on FCE forest sites need to seek permission to do so. This ensures that FCE can make sure that events and activities do not clash on site, that the third-party provider has public liability insurance and is aware of any forest operations that might be occurring on site. For activities such as Gruffalo orienteering or the Stick Man trails, participants bought a pack (showing information and routes) and numbers involved were estimated from the number of packs sold. For example, each Gruffalo orienteering pack and Stick Man pack sold was recorded as four people. This was due to the packs and activities being aimed at families with young children and an assumption was made that this was the number in each family buying the pack and using it on site. For 'play on the day' activities, such as table tennis and volleyball, assessments were made of numbers participating via the use of a sampling strategy (using either cameras or observations made by AFCs or volunteers) recording numbers at different times on weekdays and at weekends and scaling this up to give a total figure of visits. Cycle-hire data were also included in the operational data; cycle hire was available at all of the sites. Activities were recorded as core activities, POD or events. However, it was sometimes difficult to decide which category an activity fitted into and there were sometimes different interpretations of this across the sites by the AFCs. We have not tried to standardise this as the most important findings are about the activities themselves. However, broadly speaking, POD included table tennis, volleyball, football, netball; core activities covered primarily cycling and running; events included a host of activities such as running events, parkrun and orienteering.

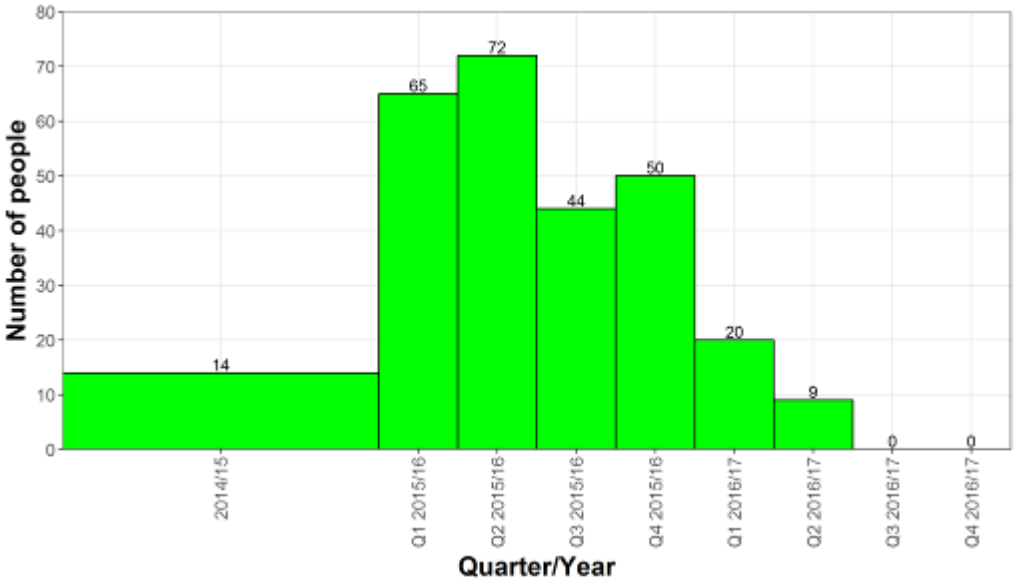
**Participant survey** – a short survey was created with the aim of capturing some basic data in a short time. The survey could be completed in a couple of minutes and covered questions about the type of activity undertaken, the forest in which it was undertaken, how people found out about the activity, how often people participated in sport and their age (Appendix 1). The survey was administered in the following ways: via the FCE website, via websites of third-party providers who were running events on site, via Facebook sites (both FCE and other providers), and also via the AFCs and volunteers gathering data on site using an iPad at events and activities. An incentive was provided to encourage completion of the survey. The sample was self-selected via the online survey and sampled for a variety of activities on site at different times and on different days. Figure 7 shows the number of people who completed the participant survey each quarter, broken down by those completing via the iPad or online. There was a clear peak in the second year of the pilot, but numbers started to drop off rapidly beyond this, particularly with regards to the online survey data. This was likely due to the expiry of the incentive associated with the survey. Total participant numbers are provided in Table 1 at the end of the Methods section (n = 2,206).

Figure 7. Number of people completing the participant survey by quarter, via iPad (blue) or online (red); see Appendix 3, Figure A3.1, for forest-site breakdown.




**Follow on survey** – those who completed the participant survey were asked to complete a longer survey three months after they originally filled in the participant survey. An email was sent after three months asking the participants to complete this new survey; no reminder emails to complete the survey were sent after the first approach. The sample was self-selected. The questions asked whether participants had carried on undertaking activity in the forest, the benefits of those activities, the motivations for participating, any barriers associated with undertaking activity in a woodland environment and how often people participated in sport (Appendix 1). Demographic data were also gathered. Both surveys only included people of 16 years of age or older. Figure 8 shows the number of people who completed the follow-on survey each quarter and year (2014/15). The peak in the second year of the pilot mirrors that in the participant survey. The knock-on effects of the loss of the incentive in the participant survey can be seen in the follow-on survey, with numbers dropping down to zero by Q3 2016/17. Total follow-on survey numbers are provided in Table 1 at the end of the Methods section (n = 274). 12% of those who filled in the participant survey went on to complete the follow-on survey.

Figure 8. Number of people completing the follow-on survey by quarter/year.




**Participatory focus groups/interviews** – the methodological approach was to (where possible) undertake the physical activity with the participants to act as a participant observer to the activity, and then undertake a focus group or individual/group interviews at the end of the activity. A purposive sample was selected to try and get a mix of activities and participants at the different AF sites. Data were not captured at High Lodge Thetford due to the AFC leaving before the end of the programme and it was difficult for the researcher to engage with a group without the support of the AFC. Therefore a researcher joined the following activities and events:

- Real Spin cycling at Bedgebury Forest – a weekly women's cycling group run by Quench Cycles. Quench provided the bikes for the women and helmets and an instructor to lead the ride. The women would pay for a block of weeks for the Spin class.
- GO TRI (this is a triathlon but at Dalby it was a duathlon and involved a run, cycle and run) at Dalby Forest – organised every six weeks. GO TRI is aimed at beginners to triathlon but can also provide a training opportunity for existing triathletes. It was organised by North Yorkshire Sport. Participants had to register and pay to join the event.
- Parkrun at Sherwood Pines Forest – a 5km run open to all, organised by volunteers every week at 9am, free of charge, but if participants parked at Sherwood Pines then they would pay a car-park charge.

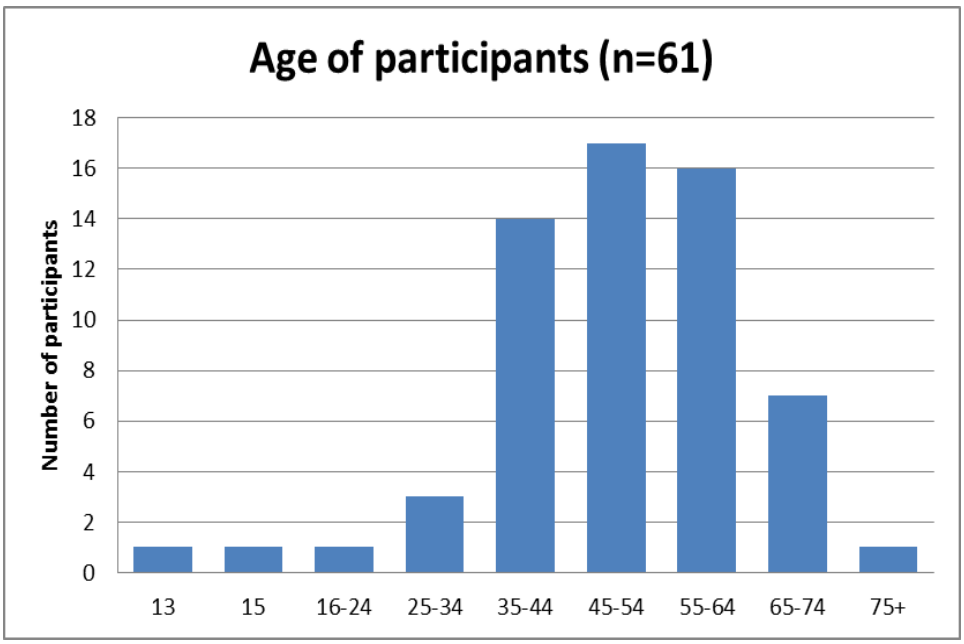
- Nordic walking[10] at Delamere Forest – the activity was run by a trained Nordic walking leader who had set up and gained permission to hold walks at Delamere Forest. Walks were held weekly for different levels of difficulty, e.g. beginners. Participants paid the instructor for a block of walks.
- Orienteering at Cannock Chase – the orienteers were part of the Walton Chasers club and paid a club membership, and the club would pay a permission fee to FCE to use Birches Valley at Cannock Chase for orienteering events.

Taking a participatory approach to data gathering provided the researcher with a better understanding of the ways in which the activities were run, how participants were engaged and encouraged, and the types of people participating and how they interacted with each other. Where possible, participants were asked to fill in a short demographic form to identify their age, ethnicity and working status. Children were only included in the research if they were accompanied by a parent or adult who provided their consent and were happy for the children to make comments.

**Demographics of the participants**

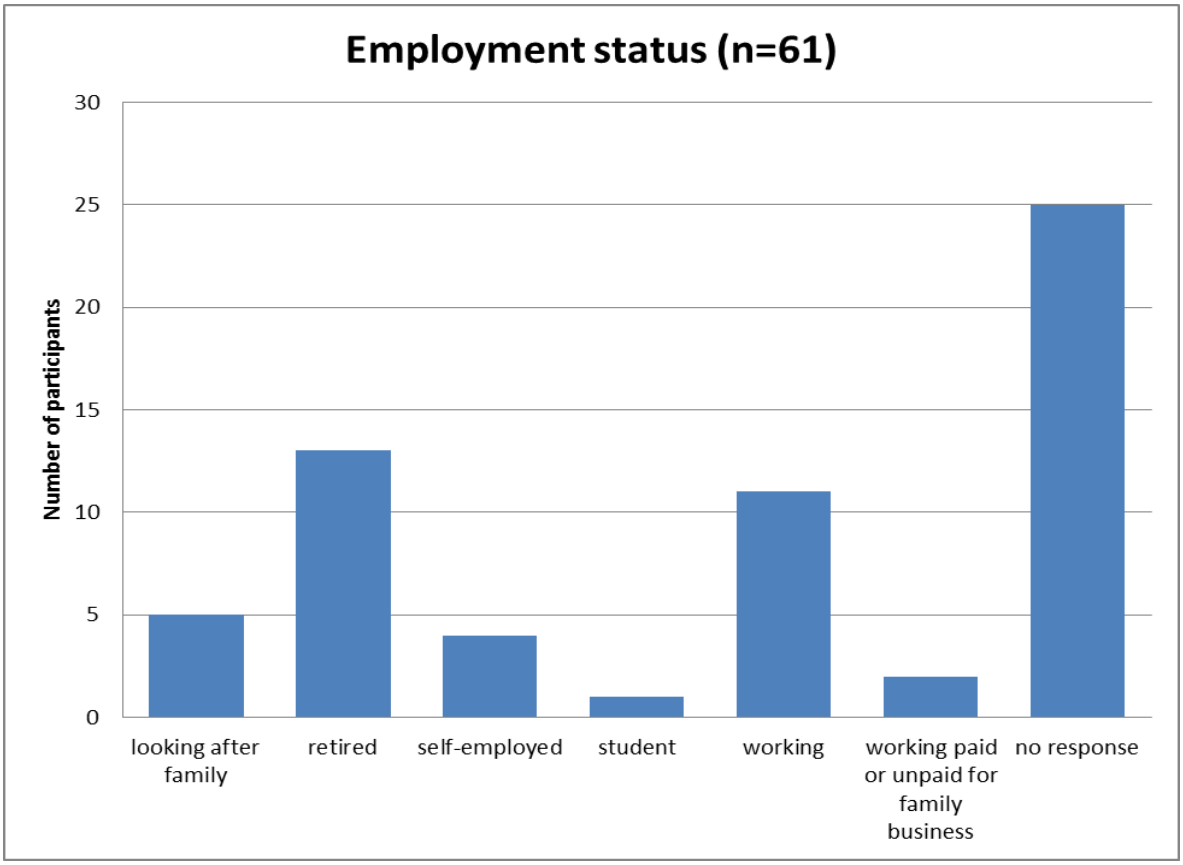
Sixty-one people participated in the focus groups/interviews (this includes the volunteer interviews). Of the participants, 38 were female and 23 were male, all were of white ethnicity, no one reported having a disability and only three people reported having a health problem that limited their activity. The age and employment status of participants is outlined in Figures 9 and 10.

Figure 9. Age of participants in focus groups/interviews




[10] Nordic walking is a sport or activity that involves walking with the aid of long poles and provides an all over workout using the upper body as well as the legs

Figure 10. Employment status of participants in focus groups/interviews




**Interviews with volunteers** When attending the above participatory focus groups/interviews the researcher was also able to interview a small number of volunteers who were helping to organise, run and support some of the AF activities. This included volunteers organising the parkrun at Sherwood Pines, volunteers helping to support activities at Dalby and volunteers organising the orienteering at Cannock Chase. The interviews explored some of the motivations and benefits of volunteering and the challenges the volunteers faced.

**Interviews with National Governing Bodies** Three interviews were undertaken with representatives of parkrun, British Triathlon and England Athletics. The interviews were undertaken part way through the pilot so were not focused on the overall outcomes of the AF programme but focused on the aims of NGBs, their involvement in the AF programme and partnership working with FCE.

**Discussions with AFC** Conversations were held with four AFCs while the pilot was running to discuss some of the early successes and challenges of running the programme at the different forest sites.

# 4.1. Data analysis

## 4.1.1. Qualitative analysis

All of the focus groups and interviews were recorded using a Dictaphone; detailed notes were taken from all of the recordings. Verbal or written consent was gained from all the participants. Sometimes written consent was not gained if the weather was poor and there was no shelter for people to sign consent forms. Demographic data were gathered from participants where possible. All of the notes were imported into NVivo (a qualitative software package) and analysed to identify key themes by coding. Coding is an interpretive technique used to organise qualitative data; it requires the researcher to carefully read the data and identify segments within it (Braun and Clarke, 2006). These segments are labelled with a code that provides an indication of what is included within that segment. Therefore, the coding process involved the careful reading of each focus group/interview transcript and attributing individual sentences, phrases or words to single or multiple codes and related themes. Codes were grouped under high-level themes.

Cannock Chase Forest acted as overall comparison site as it only had an AFC for approximately six weeks; however data continued to be gathered at the site.

Any names used in the qualitative reporting are not the real name of participants. The terms F1, F2 or M1 used in the quotes denote different females or males speaking.

## 4.1.2. Quantitative analysis

**Operational throughput data** Throughput data were collated across the three years of the pilot study. Given that the throughput data were population and not sample data, descriptive statistics were used to assess for differences, with a focus on the differences by forest site, activities and type of activity, along with an assessment of the change in visits across the three years of the pilot study.

**Participant survey** Descriptive statistics were used to summarise the participant survey data by activity, forest site and age. Inferential statistics were used to further analyse activity and marketing data. All inferential statistics were carried out using R version 3.3.1. (R Core Team, 2016).

Determinants of the main activities were assessed; sample sizes restricted the analysis to the five main activities recorded in the participant survey (where n>50). Each main activity was treated as a binomial response for each respondent (e.g. for cycling, if the participant recorded this as the activity undertaken at the forest site this was recorded as a 1, otherwise recorded as a 0). Each binomial response was then used as the response variable in a generalised linear model (GLiM, binomial errors with logit link function), with frequency of activity, age category, new activity (yes/no), accompanied by under 16s (yes/no) and forest site used as predictors for each activity (main effects

only). The significance of the predictors was determined based on the likelihood-ratio chi-square test statistics from the analysis of deviance on the best fit model (Fox & Weisberg, 2011). Post hoc tests were performed based on the linearised logits, with significance determined using Bonferroni-corrected multiple comparisons (Graves *et al.*, 2016; Lenth, 2015). A similar approach was used to assess potential drivers of new and future activities.

For marketing data, a multinomial logistic regression was applied to the data, with broad marketing category as the response and frequency of activity, age category, new activity (yes/no), accompanied by under 16s (yes/no) and forest site as predictors. The significance of the predictors was determined based on the likelihood-ratio chi-square test statistics from the analysis of deviance on the best fit model (Fox & Weisberg, 2011). Post hoc tests were performed based on the linearised responses, with significance determined using Bonferroni-corrected multiple comparisons (Graves et al., 2016; Lenth, 2015).

**Follow-on survey** Descriptive statistics were used to summarise the follow-on survey data by demographics and return activities.

Due to small sample sizes (see Table 1), it was not possible to conduct in-depth statistical analyses using multiple predictors (e.g. age plus forest etc.). Given this, statistical analyses were restricted to forest site as a single predictor, with the caveat that differences in other factors (e.g. age of respondents, frequency of activity etc.) could potentially mask or accentuate the forest comparisons. The proportion of respondents returning to do the same or different activities as provided in the participant survey were analysed by recording these as binomial responses for each and using a GLiM with binomial errors and logit link function, as described under the participant survey methodology, but restricted to forest site as a single predictor. The number of activities different to the original undertaken by an individual (i.e. different from participant survey activity, such that if participant survey indicated archery and the follow on archery and football, the number of different activities = 1, not 2) were also analysed in a similar fashion, although given that these are counts, a GLiM with Poisson errors and log link function was used.

As both the participant survey and the follow-on survey contained the same question related to frequency of sport, individuals could be tracked across the two surveys to determine whether the frequency of their sporting activity has increased since visiting the forest site. It is possible to test whether these shifts are statistically significant by ranking sporting activity from 1 (more than once a week) to 5 (not in the last six months). Data were then tested for those individuals recorded as less active in the participant survey (at least once a month, less than once a month, not in the last six months), and testing this against their reported activity level in the follow-on survey, using a pairwise Wilcoxon's signed rank test.

Table 1. Numbers involved in the various mixed methods

| Mixed-methods approach | Year 1 2014/15 | Year 2 2015/16 | Year 3 2016/17 | Total |
|---|---|---|---|---|
| Operational throughput data | 105,542 | 229,091 | 365,464 | 700,097 |
| Participant survey (online and on site) | 75 | 1,720 | 411 | 2,206 |
| Follow-on survey (online three months after completing participant survey) | 14 | 231 | 29 | 274 |
| Participatory focus groups and interviews with participants (on site) | 0 | 29 | 23 | 52 |
| Interviews with volunteers (on site) | 0 | 5 | 4 | 9 |
| Interviews with third-party providers | 0 | 2 | 1 | 3 |
| Interviews with National Governing Bodies (via telephone) | 0 | 3 | 0 | 3 |
| Discussions with Active Forest Coordinators (on site) | 0 | 3 | 1 | 4 |

# 5. Results from the monitoring and evaluation

## 5.1. Visits, activity and practice patterns

### 5.1.1. Throughput data: total visits

Figure 11 shows the cumulative number of visits across all sites for the three years of the pilot (total visits = 700,097). The upwards trajectory of the curve indicates that numbers were increasing more rapidly every quarter.

Figure 11. Cumulative number of visits recorded across all forest sites (red line); the dashed line represents the expected increase in numbers every quarter, based on the final total number of visits (i.e. same number of visits per quarter throughout the pilot).

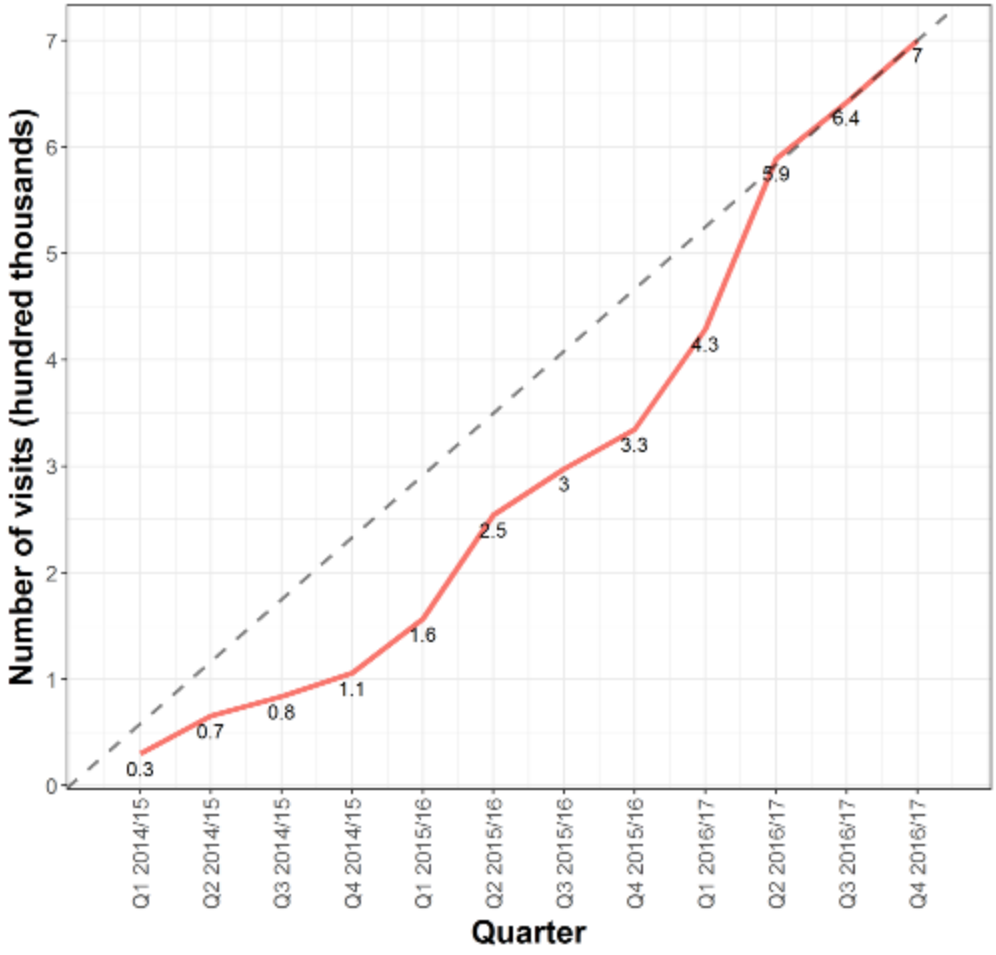
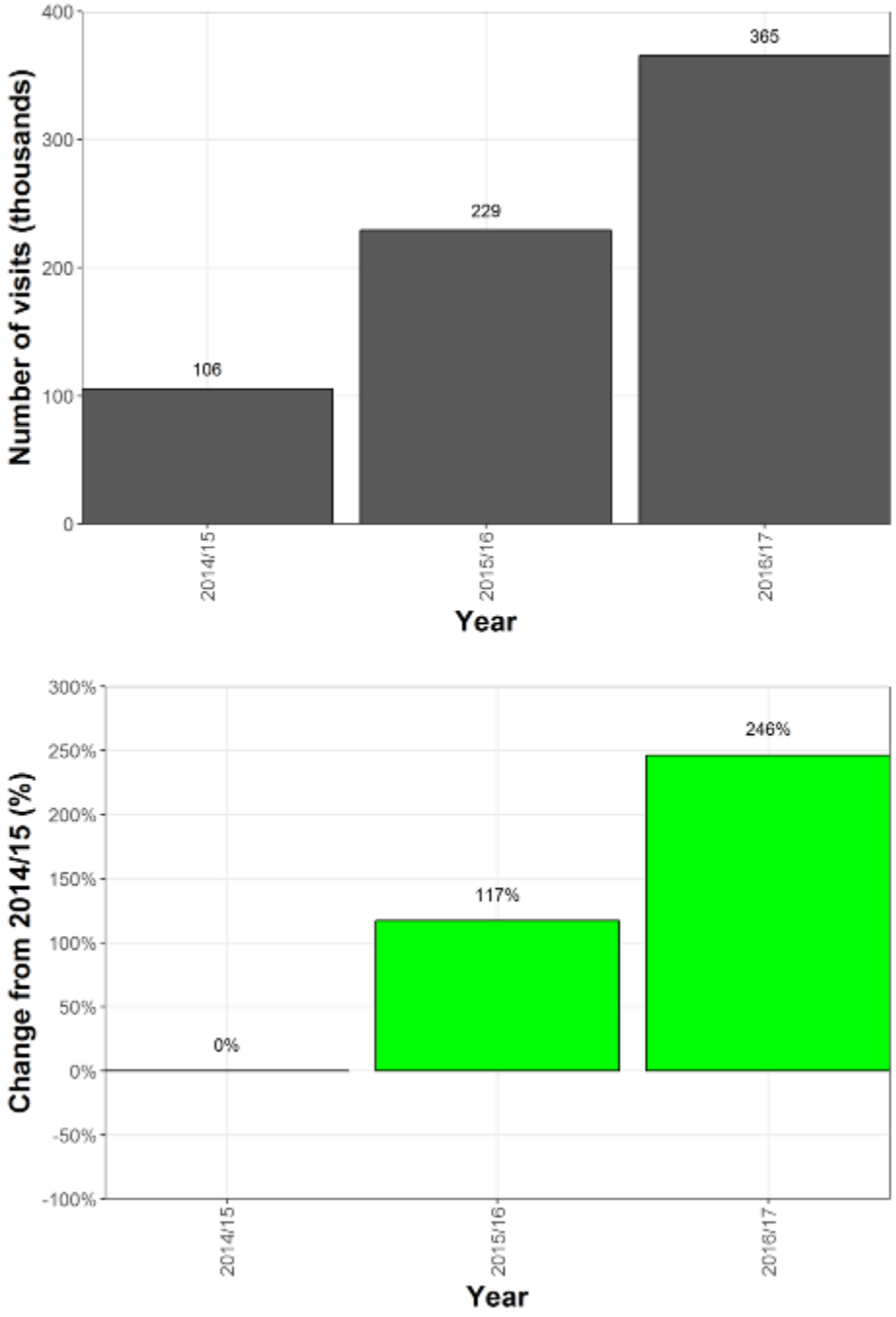



Figure 12 shows the total number of visits across all forest sites each year, along with the change in the number of visits versus the first year (baseline) of the pilot; this supports the increasing rate of site visits shown in Figure 11. There is a marked year-on-

year increase in the number of visits: by the final year, the number of visits had increased by 246% versus the first year. For quarterly breakdowns, please see Table A3.1 in Appendix 3.

Figure 12. Total number of visits recorded across all forest sites, and percentage change in visits per year compared to year one of the pilot (2014/15).



### 5.1.2. Throughput data: visits by site

Figure 13 shows the cumulative number of visits across all sites for the three years of the pilot. High Lodge showed the largest number of visits across the pilot study, with over 200,000 sporting visits (for precise numbers, please see Table A3.1 in Appendix 3). The majority of sites showed an accelerating upwards trend in the number of visits through time; the marked exception to this is Cannock (the comparison site), where there was no acceleration in the number of visits – the total number of visits was also much lower than at other sites. This result is supported by Figure 14 (see also Figure A3.2 in Appendix 3): most sites show large year-on-year increases in the number of visits, with the exception of Cannock. These results indicate the very positive impact of the Active Forest programme on visitor numbers – by the final year of the pilot, visitor numbers had increased by at least 34,000 or 150% (versus the first year) in the five Active Forest sites, versus 4,000 or 46% at Cannock.

Figure 13. Cumulative number of visits recorded by forest site; dashed lines represent a linear increase in visits based on the final total (i.e. same number of visits per quarter throughout the pilot).

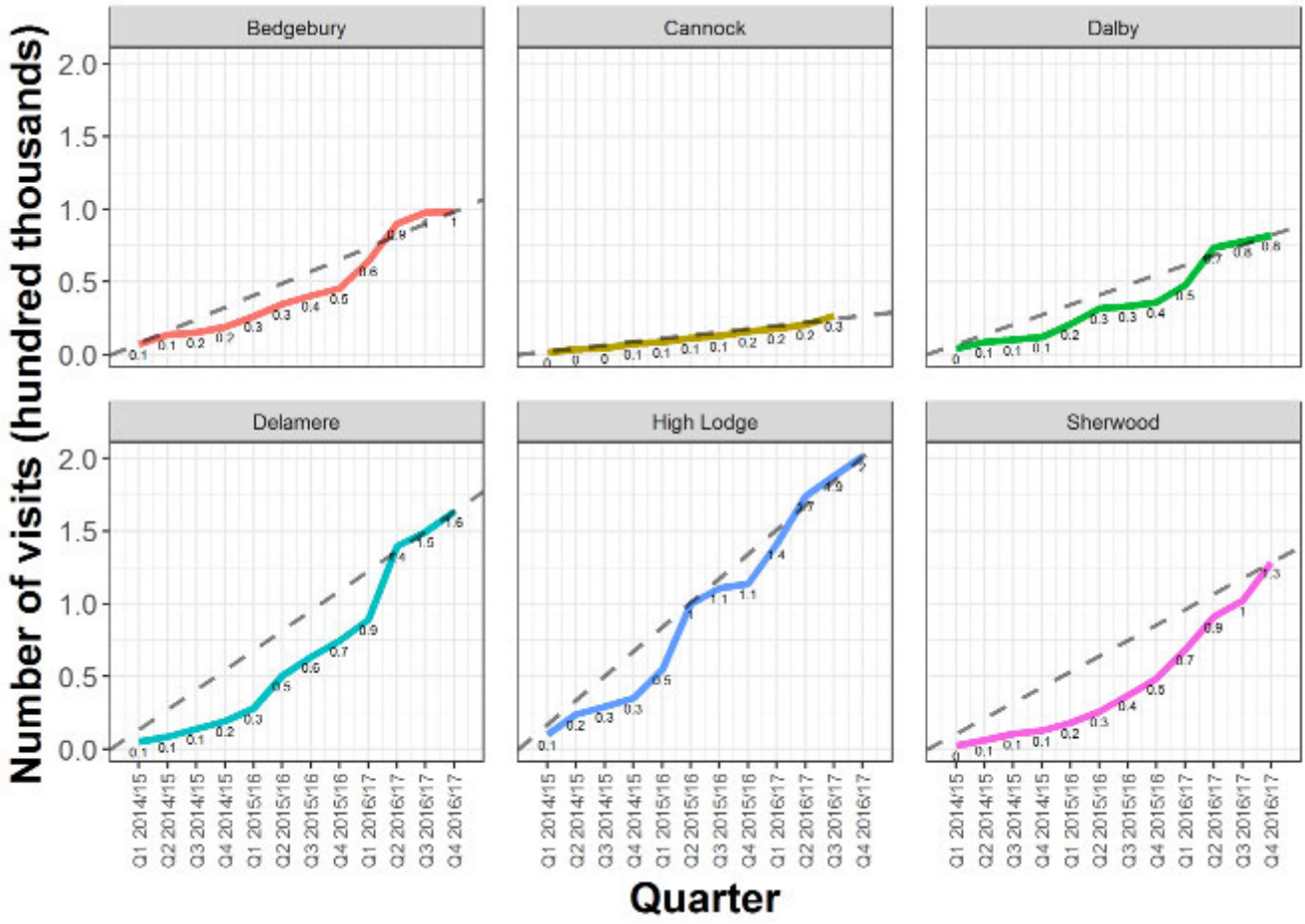
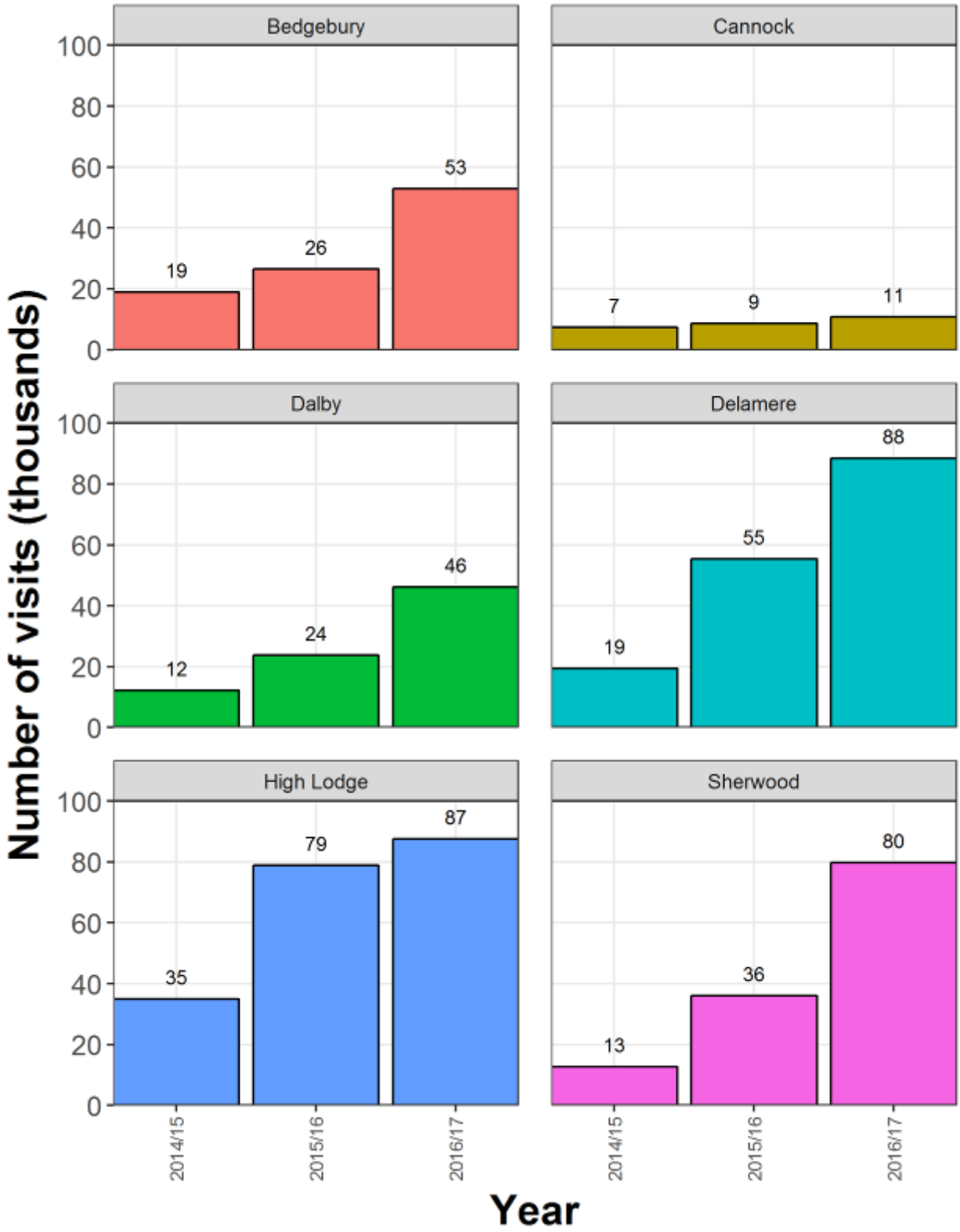


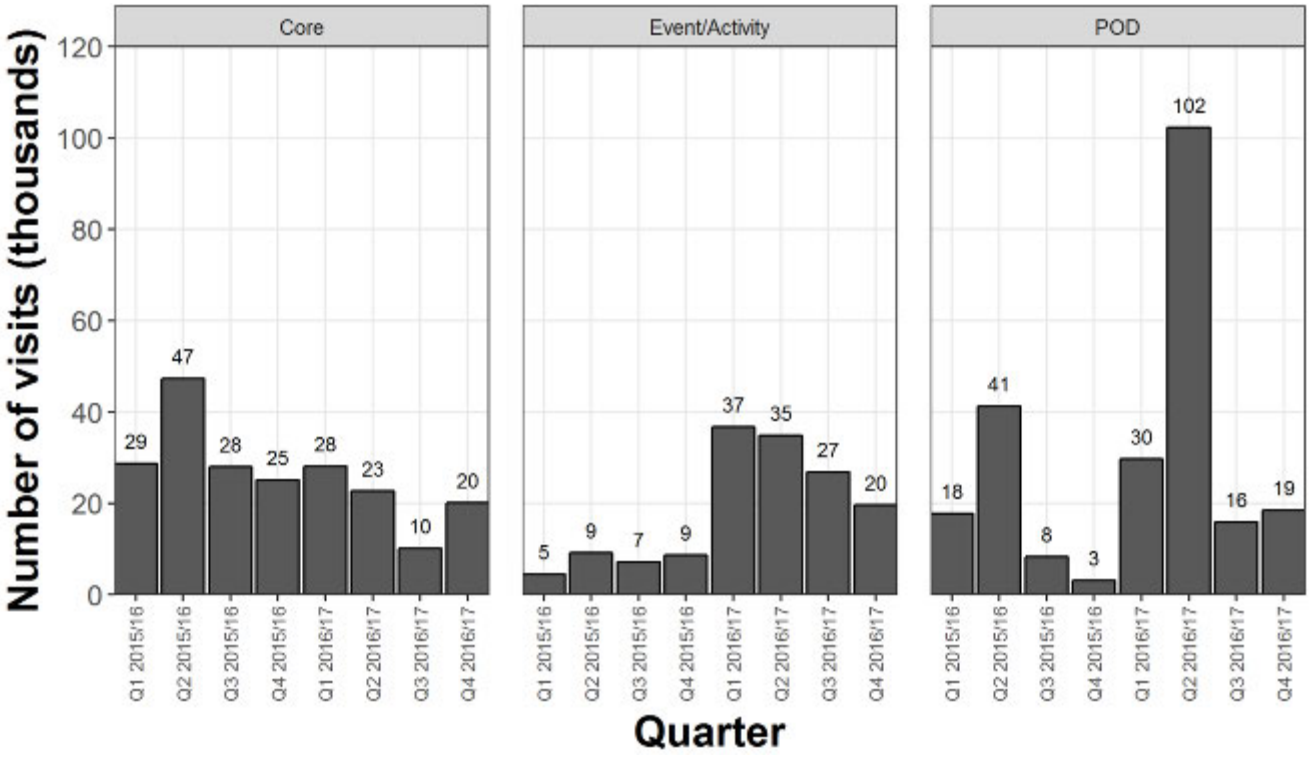
Figure 14. Total number of visits recorded by forest site: number of visits per year.



### 5.1.3. Throughput data: visits by type

Figure 15 shows that visits for core activities tended to decline across the three-year pilot, whereas events and 'play on the day' (POD) activities increased. This picture was mostly consistent across the forest sites (see Figure A3.3 in Appendix 3), although Sherwood did not show declines in core activities.

Figure 15. Total number of visits recorded across all forest sites by activity type per quarter (POD = 'play on the day' activities).




### 5.1.4. Throughput data: visits by activity

Figure 16 shows the cumulative number of visits across all sites for the three years of the pilot, broken down by activity (ranked from most to least popular). The top five most popular activities by number of visits were cycling, running, orienteering, bat/racket sports and fitness.

Cycling was the most popular activity, and was consistently popular throughout the pilot (indicated by the relatively straight line through time); the other most popular activities all showed a marked upwards trend across the three years, indicating an acceleration in the number of visits for these activities during the Active Forest pilot.

The acceleration in visits for most activities (except cycling) is supported by Figure 17; after cycling, the five next most popular activities all showed marked year-on-year increases in the number of visits (see also Figure A3.4 in Appendix 3).

Figure 16. Cumulative number of visits recorded by activity; dashed lines represent a linear increase in visits based on the final total (i.e. same number of visits per quarter throughout the pilot).

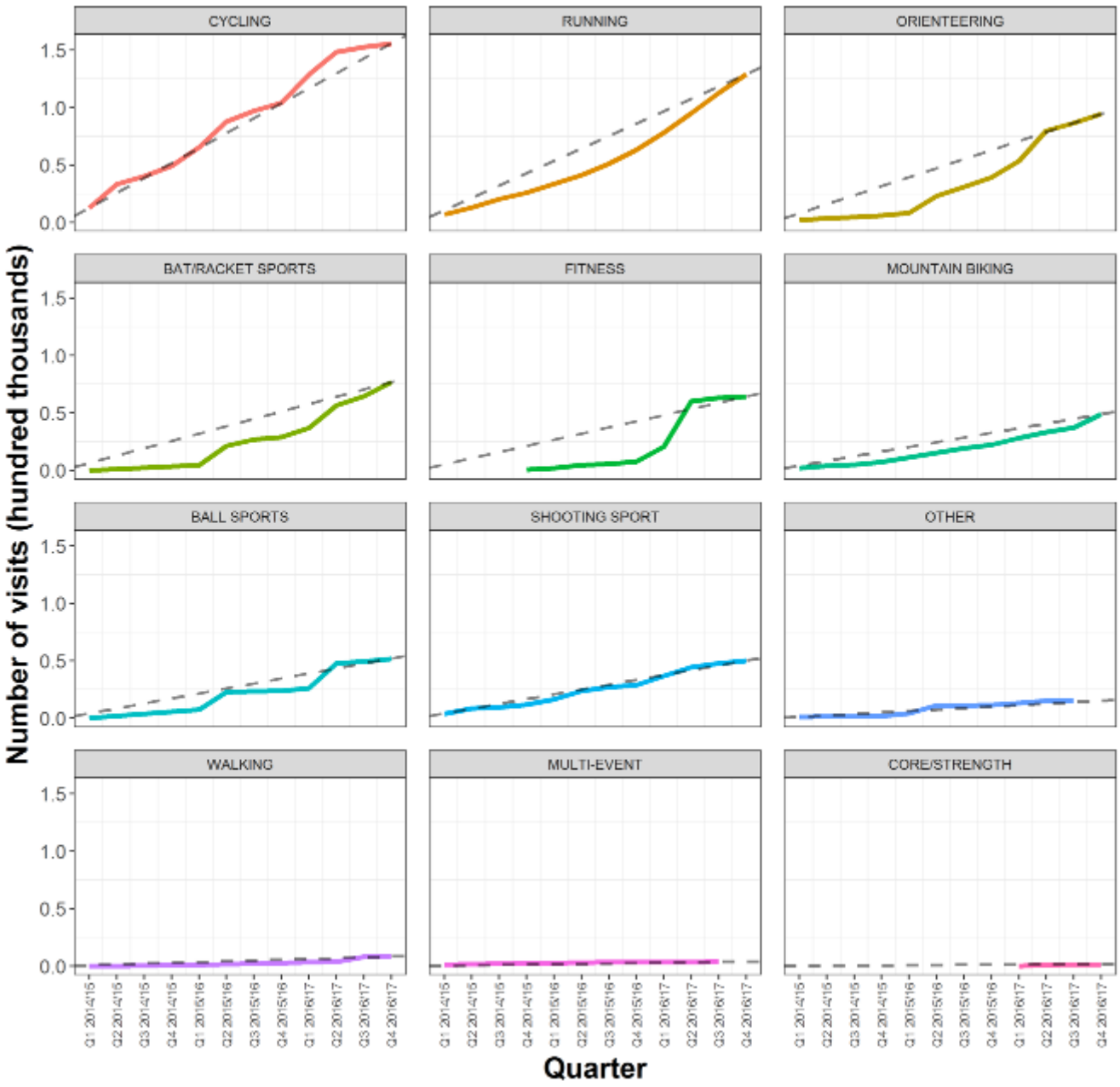
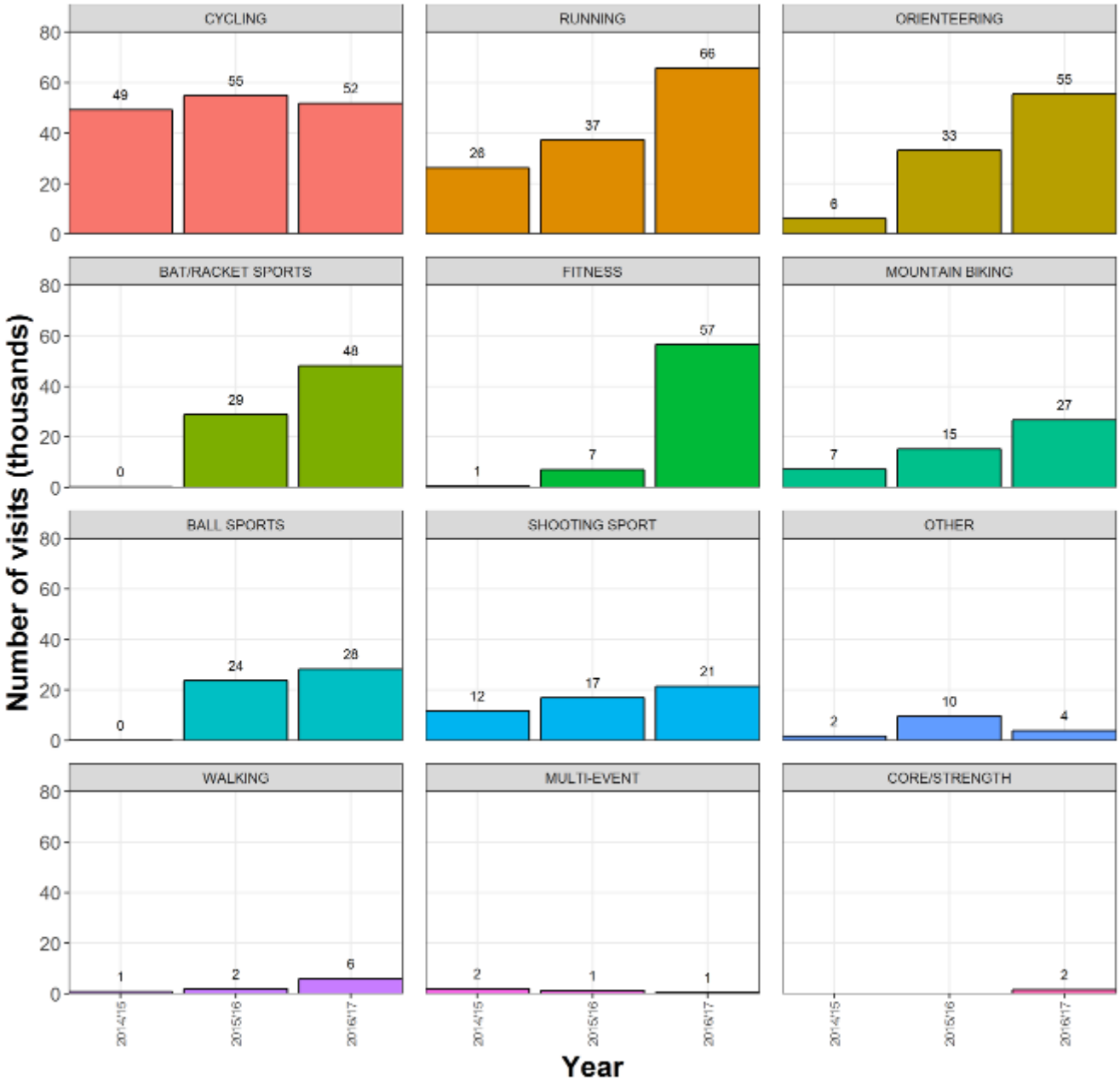


Figure 17. Visits recorded by activity: percentage change in visits per quarter, based on the quarterly average.

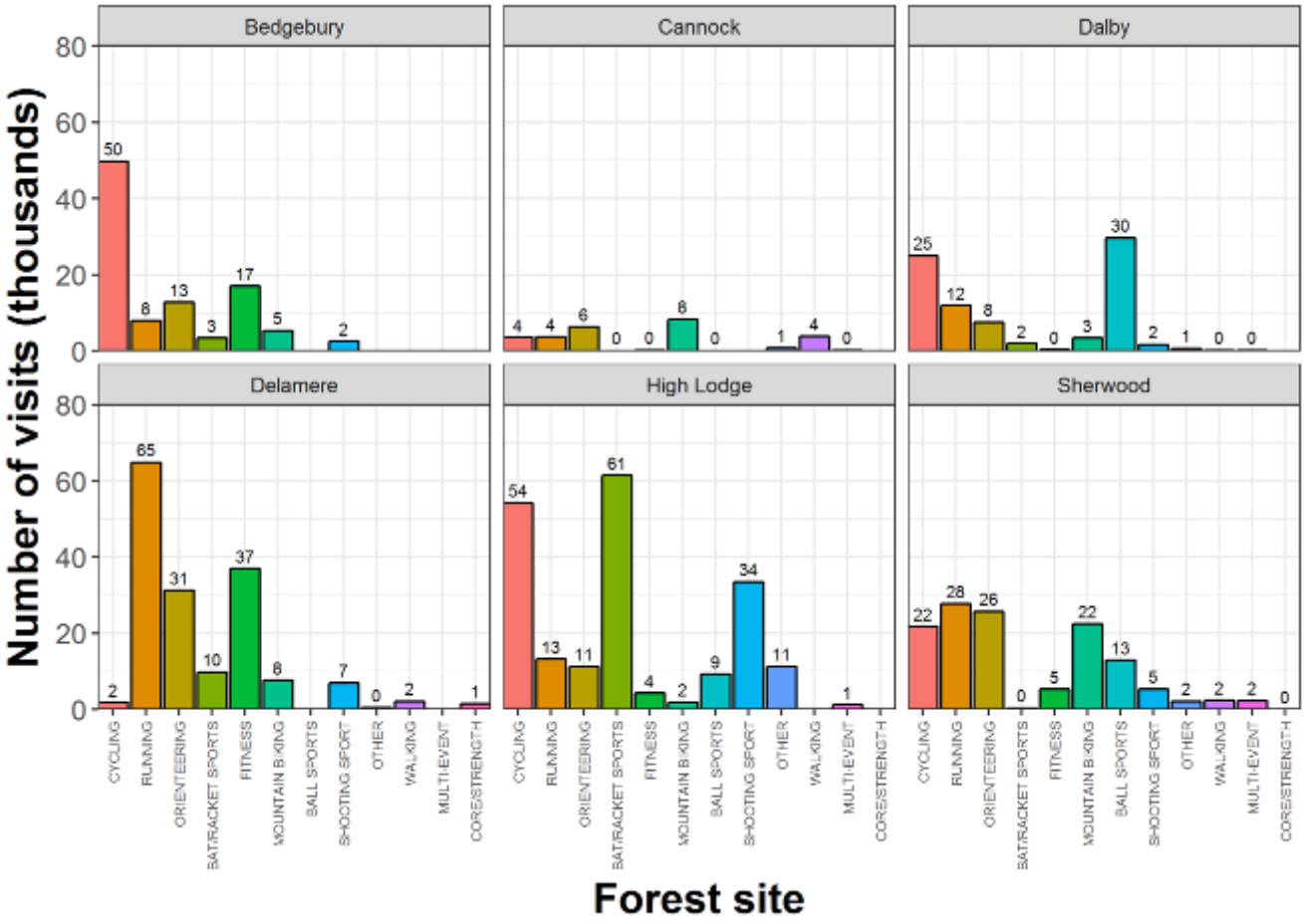



## 5.1.5. Throughput data: visits by activity for each forest site

Figure 18 shows the total visits by activity for each forest site (see also Appendix 3 Figure A3.5 and Tables A3.2 and A3.3 for further details); this shows marked differences in the most popular activities across the forest sites. At Bedgebury, cycling was by far the most popular activity; at Cannock, mountain biking was most popular; at Dalby, ball sports were most popular, with cycling also attracting many sporting visits. At Delamere, running, fitness and orienteering were all very popular; at High Lodge bat/racket events

(driven by table tennis, see Table A3.2) had most visits, with cycling and shooting sports (archery, see Table A3.2) also being popular; Sherwood supported a range of activities including running, cycling, orienteering and mountain biking.

Figure 18. Total number of visits recorded by activity for each forest site.




## 5.1.6. Throughput data: drivers of change in the main activities

Figures 16 and 17 showed marked acceleration in visits for the main activities aside from cycling. In the case of running and orienteering (second and third most popular activities), it is possible to drill down into the data to identify the key drivers of these changes through time.

Figure 19 shows the absolute number of visits for running by quarter, broken down into parkrun and other events; there is clear evidence of parkrun driving the increase in running visits across the pilot, with parkrun visits making up 700 visits per quarter at the start of the three years and 12,540 visits by the end of the three years (~17-fold increase). Other running visits stay relatively stable throughout this time, between 3,000 and 7,000 visits per quarter.

Figure 20 shows the absolute number of visits for orienteering by quarter, broken down into Gruffalo orienteering and other events; the large increase in visits observed from Q2 2015/16 onwards were clearly driven by Gruffalo orienteering. In the first year of the pilot there were 6,126 orienteering visits, by the final year of the pilot this had increased to 55,419 visits (~8-fold increase), with 99% of this increase being due to Gruffalo orienteering.

Figure 19. Total number of running visits recorded by parkrun (blue) and other running (red) events.

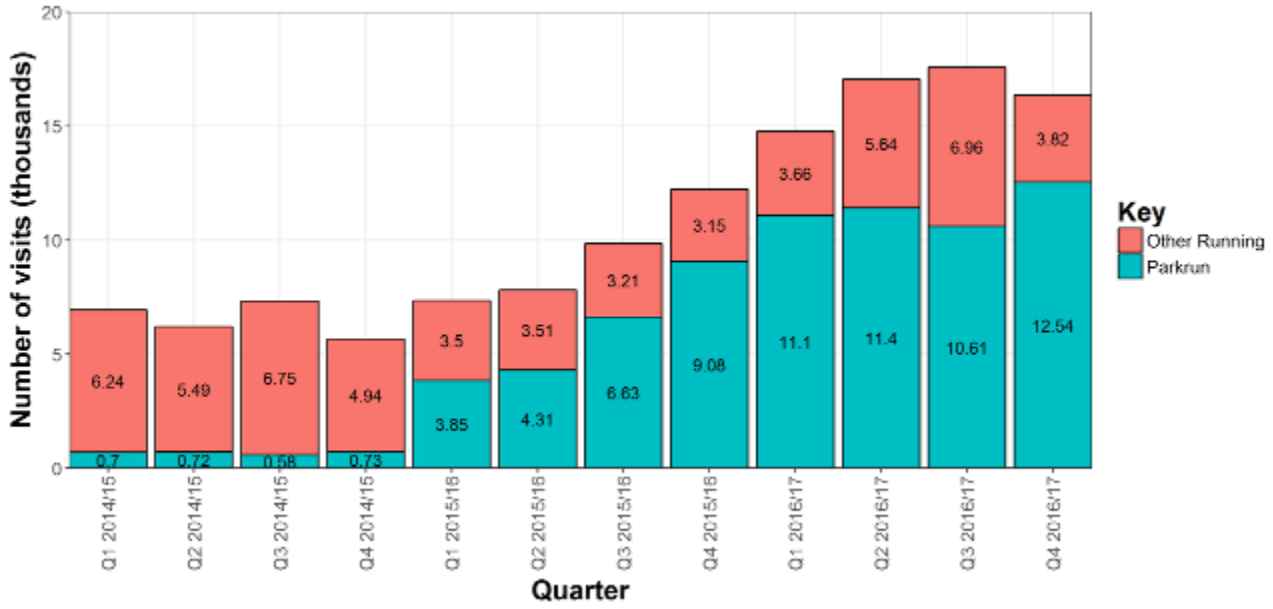
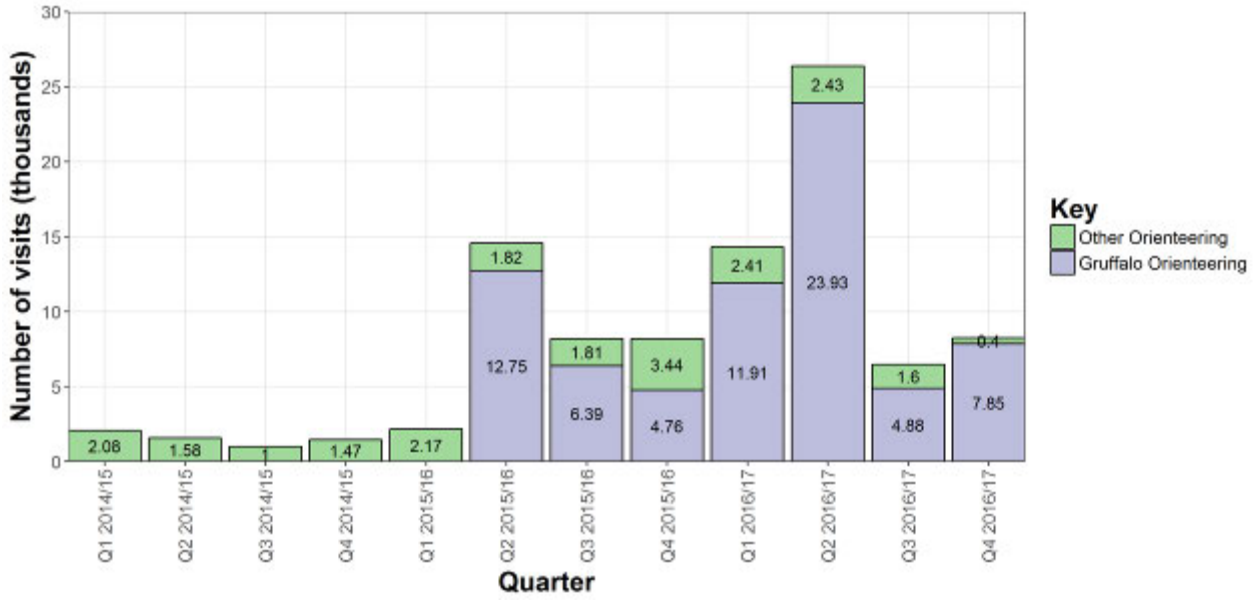



Figure 20. Total number of orienteering visits recorded by Gruffalo (purple) and other orienteering (green) events.



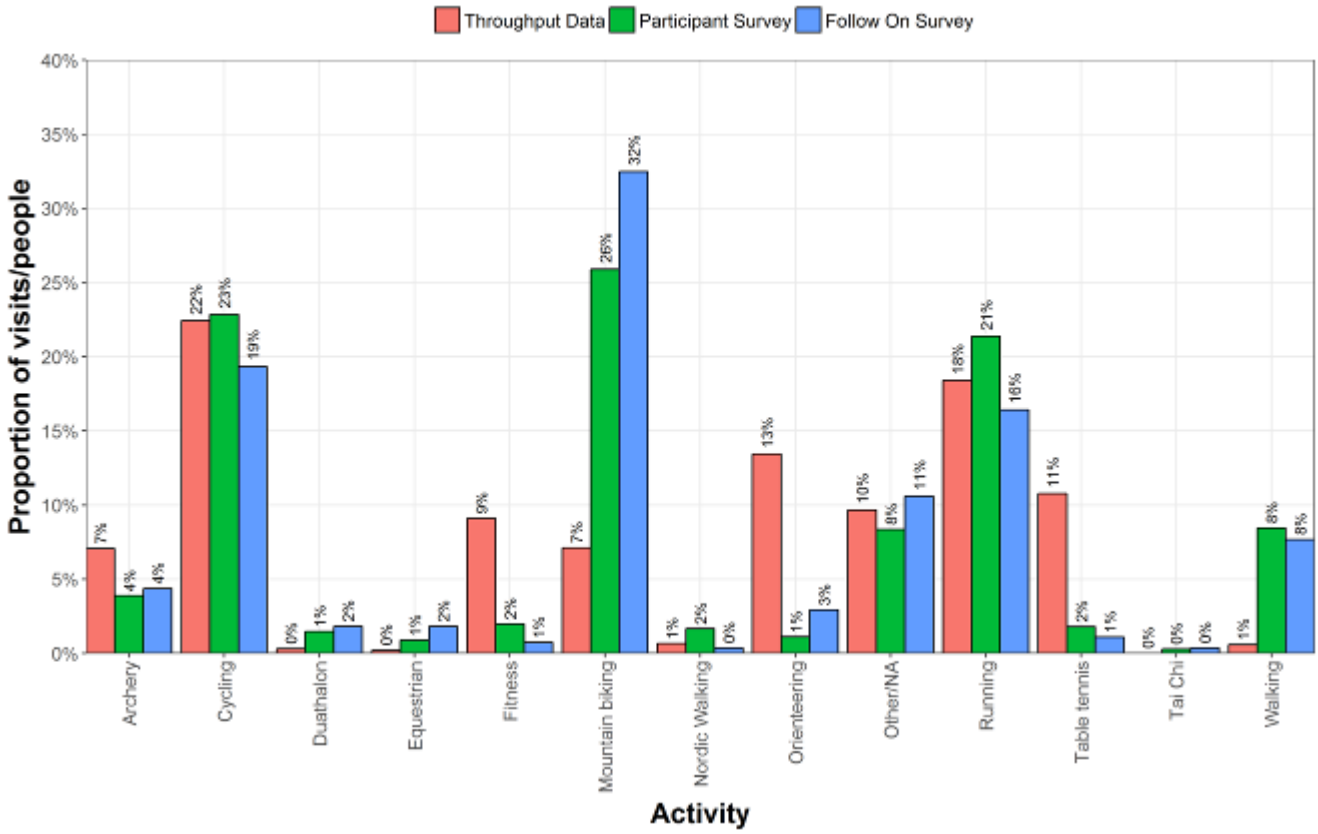
### 5.1.7. Throughput data versus survey data: comparisons by activity

Figure 21 compares the throughput data to the participant and follow-on survey data, in terms of proportion of activities represented. There were clear shifts between the activities represented in the throughput data versus the survey data (although the two surveys were similar).

Mountain biking and walking were over-represented in the participant and follow-on survey versus the throughput data (Figure 21). This may indicate more successful marketing of the surveys for these specific activities.

Fitness, orienteering and table tennis were under-represented in the participant and follow-on survey. The throughput data represent visits, whereas the surveys represent individuals, therefore it may be expected that activities undertaken by an individual multiple times per quarter should show higher proportions in the throughput data versus the survey data. This seems an unlikely explanation for the differences here, however, as the most likely activities for multiple visits per quarter (running and cycling) showed similar proportions in the throughput and survey data (Figure 21).

Figure 21. Comparison on throughput, participant and follow-on survey by proportion of activities.



### 5.1.8. Survey data: demographics of participants

The participant survey and follow-on survey provided a range of information regarding individuals. Figure 22 shows the likelihood that individuals are frequent visitors to green space for activity, and frequency of forest visits. The majority of individuals (80%) had visited green space for health activities in the past seven days. The majority of people (78%) visited a forest site at least once a month.

Figure 22. Follow-on survey data (n=274): proportion of individuals (a) who had visited green space in the past seven days; (b) by frequency of forest visits.

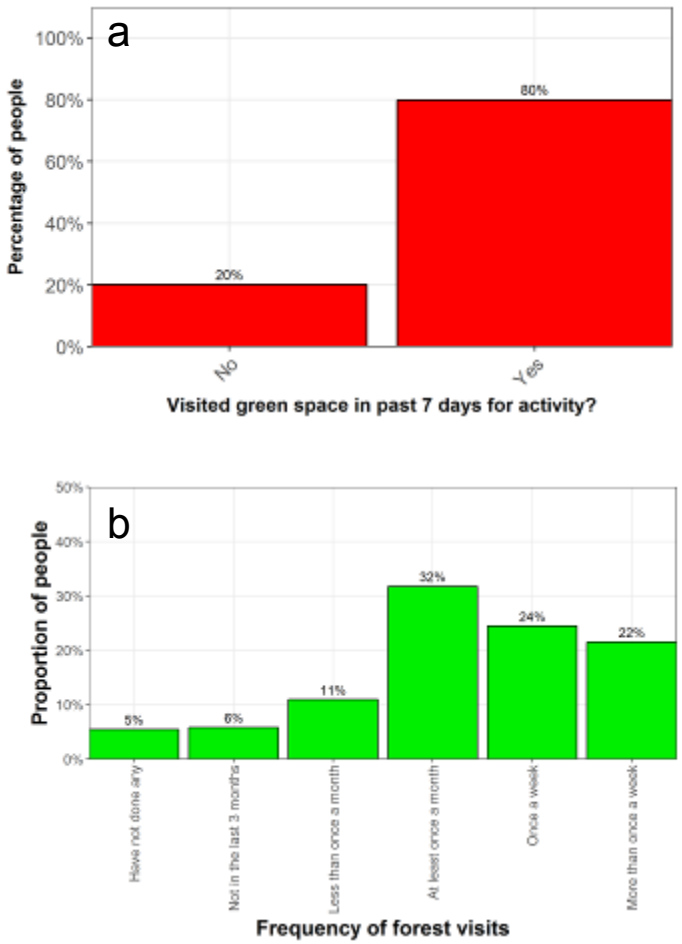



Figure 23 shows the age breakdown of respondents, along with the number of accompanying children (1,801 children in total; 343 14–15-year-olds and 1,458 under-14s). Overall, 33% of respondents were accompanied by at least one child (14% by 14–15-year-olds and 31% by under-14s). The most likely respondent group was the 35–44 year-olds; this group also had the most accompanying children (approximately one child per adult). Of the 4,007 recorded adults and children, 578 were between 14 and 25 (14%).

The age breakdown of the participant survey showed similar trends across the main forest sites, with a central peak around 35–44 years (see Appendix 3, Figure A3.6).

Figure 23. Participant survey: Total number of people responding to survey by age (n=2,206) plus accompanying children (n=1,801).

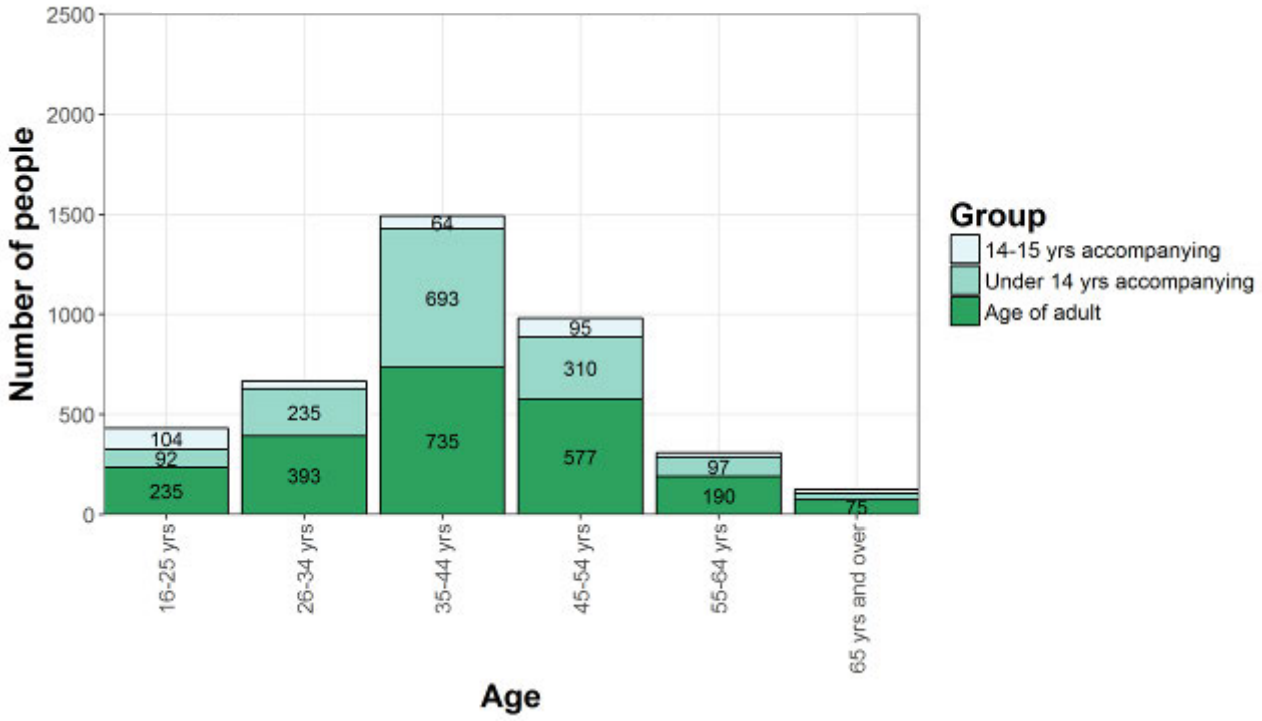



Figure 24. Participant survey (n=2,206): Total number of people responding to survey by frequency of activity.

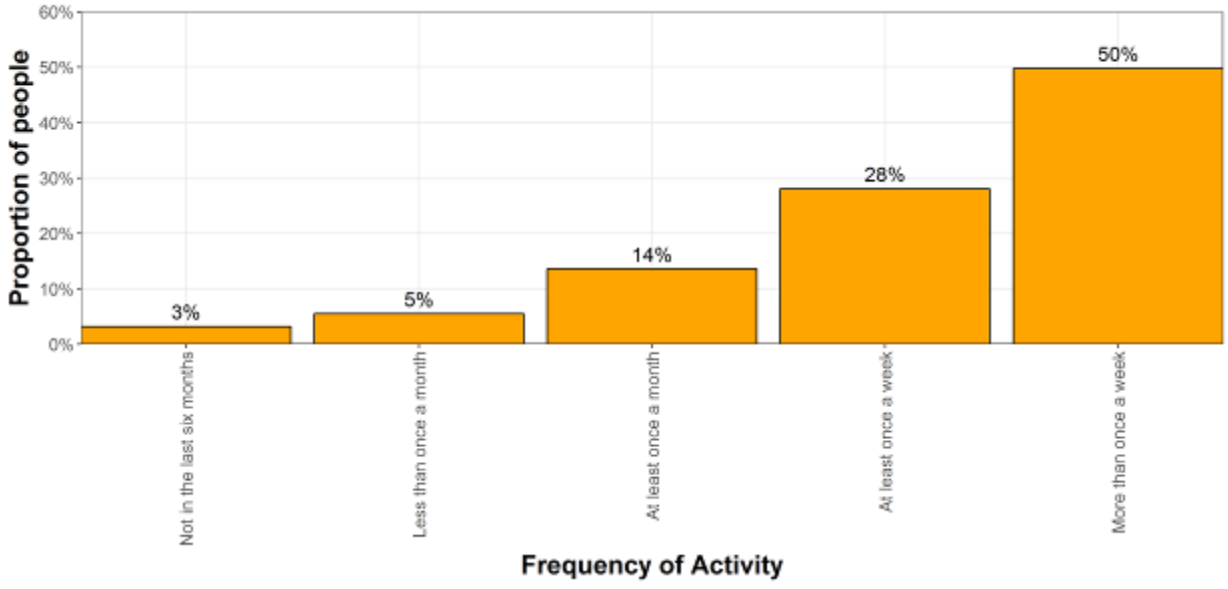


Figure 24 shows the frequency of activity data from the participant survey. Approximately 3% of individuals had not done any sports activity in the past six months; 50% of individuals participated in sports activity at least once a week.

Figure 25. Follow-on survey (n=274): Demographics of individuals completing the survey.

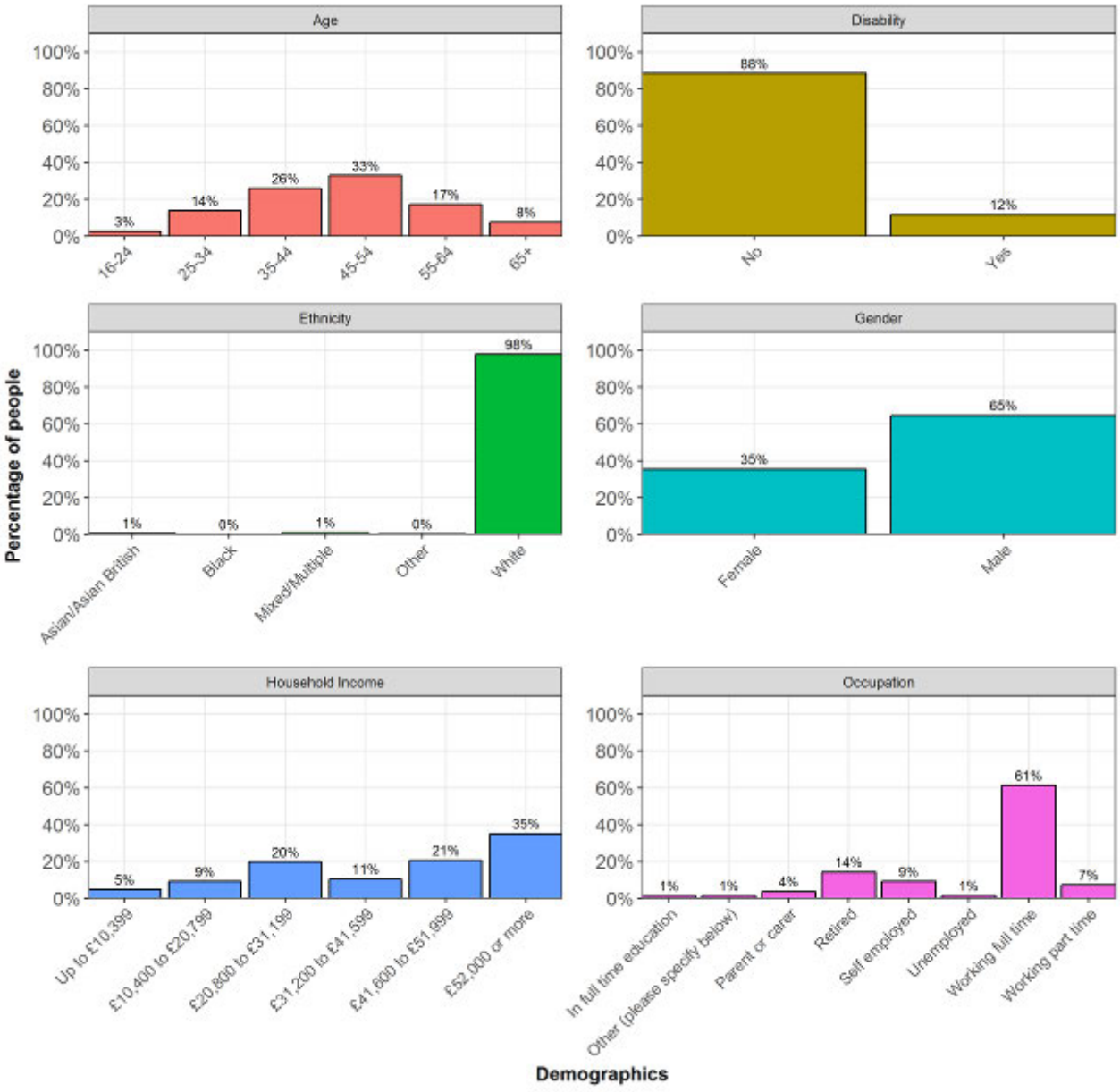



Figure 25 shows the other key demographics associated with individuals completing the follow-on survey. Approximately 12% of individuals indicated that they had a long-standing disability, this is lower than the average across England (17.6%; ONS 2011(a)).

Figure 25 shows that 98% of respondents were white; this is higher than the average across England (85%, ONS 2011(b)). Males were more likely to complete the survey than females, with approximately two-thirds of respondents being male. This was predominantly driven by large numbers of mountain bikers completing the survey, who tended to be male.

The majority of respondents worked full-time (61%), and household income tended to be high, with over half of respondents (56%) having a household income of £41,000 or more.

### 5.1.9. Participant data: statistical analysis of activities

The main activities recorded in the participant survey were tested to see whether any specific factors (frequency of activity, age category, new activity (yes/no), accompanied by under-16s (yes/no) and forest site) were significant in predicting the likelihood of participating in these activities.

A full breakdown of statistical analysis and post hoc tests are provided in Appendix 3 (Tables A3.4 to A3.9). For the five main activities recorded in the participant survey (mountain biking, cycling, running, walking, archery), most of the factors tested tended to drive differences in the proportion of participants in the survey (see Table A3.4). Figures 26 and 27 highlight some of the more interesting results related to the proportion of participants undertaking the main activities by frequency of activity and age.

Figure 26 shows that mountain bikers and runners tended to be more active individuals: significantly higher proportions of runners were very active (more than once a week) versus most of the other activity categories. Cyclists and walkers tended to be less active individuals, with cyclists most likely to carry out sport less than once a month. Walkers showed an interesting pattern: a significantly higher proportion exercised at least once a week versus those who exercised more than once a week; this may indicate that these individuals tend to use a weekly walk as their main source of activity. The proportion of individuals undertaking archery was too low to discern any meaningful differences across frequency of activity.

Figure 27 shows that mountain bikers tended to be younger individuals (under 55), whereas cyclists were of all ages (no significant differences across age groups). Runners peak in the 35–44-year-old group, whereas walkers were significantly more likely to be 55 and over, and even more likely to be 65 years plus.

There were significant differences by activity for whether or not individuals were accompanied by under-16s; cyclists and walkers were significantly more likely to be accompanied by under-16s, whereas mountain bikers and runners were significantly less likely (Table A3.8).

Figure 26. Participant survey (n=2,206): Estimated proportion of individuals undertaking five main activities by frequency of activity. Results are averaged across other significant factors (age category, new activity (yes/no), accompanied by under-16s (yes/no) and forest site). Lettering (a, b, c, etc.) indicates significant differences ($p<0.05$) within an activity (e.g. 'a' is significantly different from'b', 'ab' is not significantly different from 'a' or 'b', 'c' is significantly different from 'a', 'b' and 'ab').

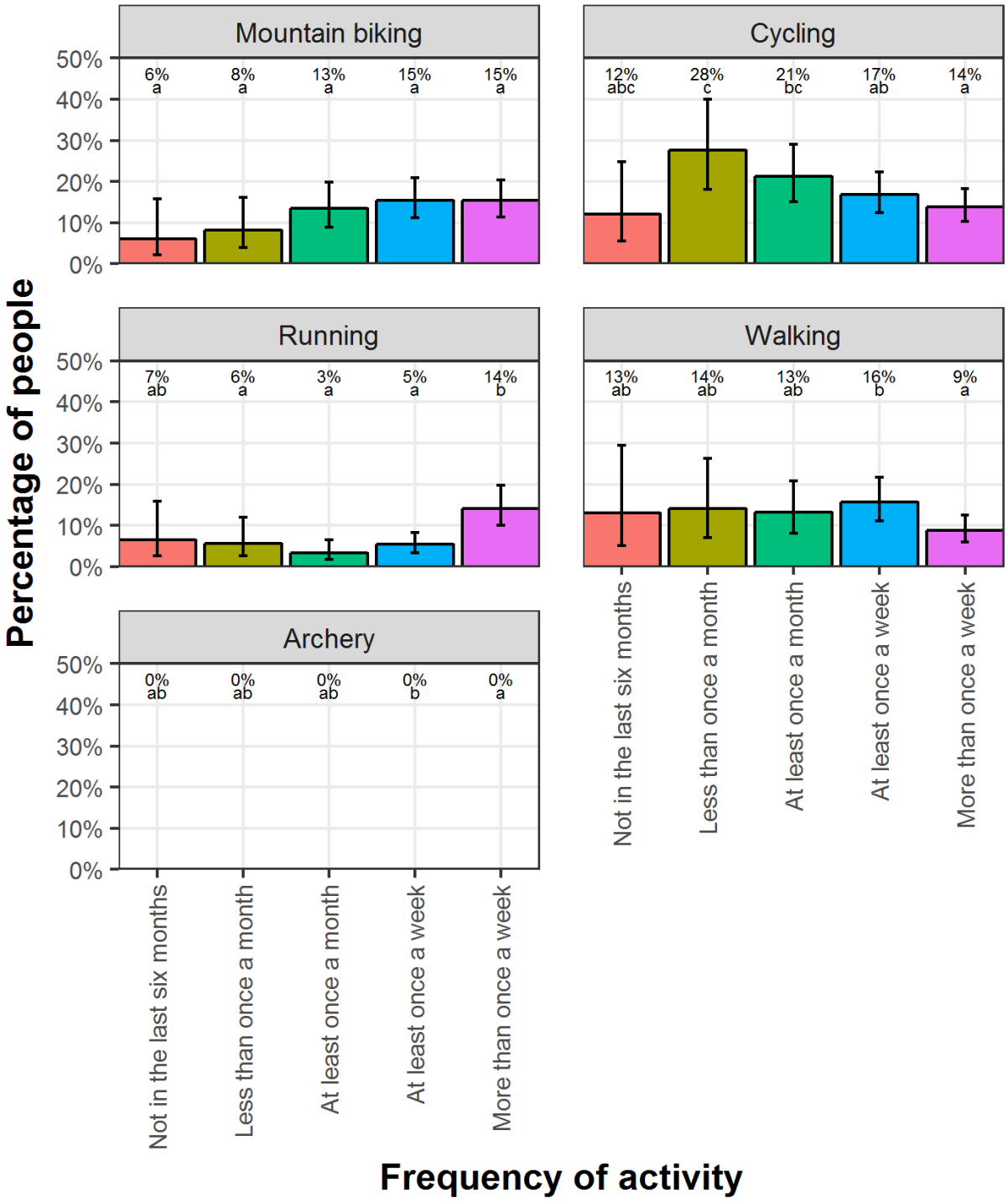
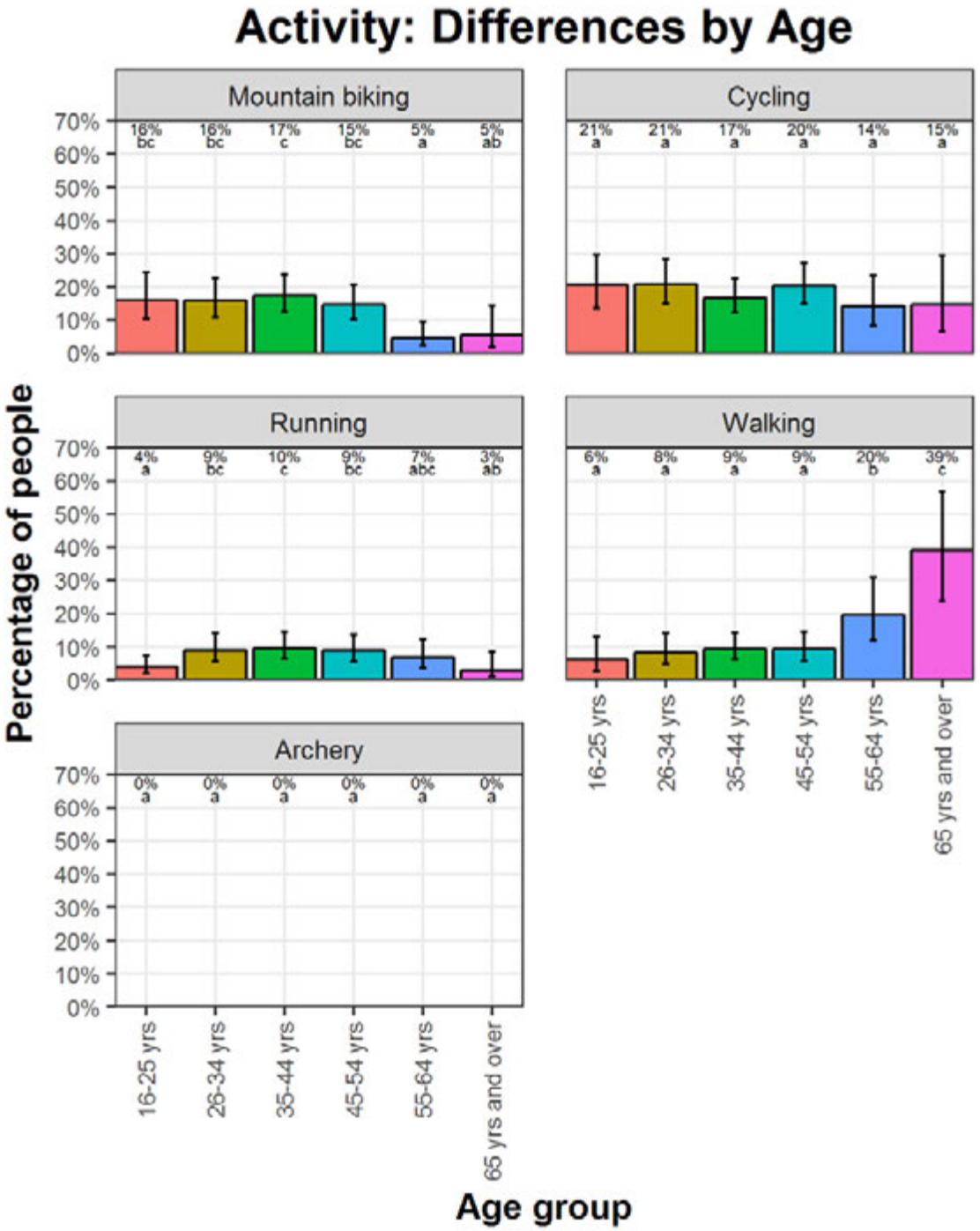


Figure 27. Participant survey (n=2,206): Estimated proportion of individuals undertaking five main activities by age. Results are averaged across other significant factors (frequency of activity, new activity (yes/no), accompanied by under-16s (yes/no) and forest site). Lettering (a, b, c, etc.) indicates significant differences ($p<0.05$) within an activity (e.g. 'a' is significantly different from 'b', 'ab' is not significantly different from 'a' or 'b', 'c' is significantly different from 'a', 'b' and 'ab').



### 5.1.10. Participant data: statistical analysis of marketing

Age, forest site, and whether individuals were undertaking a new activity or not were all significant determinants of the marketing that these individuals took notice of (Table A3.10). Younger individuals tended to hear about the activity from friends, whereas older individuals tended to hear via other sources (Table A3.11). It is not currently clear what 'other' sources include, therefore in Phase 2 of the Active Forest programme, these options will be increased in the participant survey to include 'On-site marketing' and 'NA' (not applicable). Those individuals undertaking a new activity were more likely to hear about it through social media (Table A3.12).

### 5.1.11. Qualitative data: activities and practices

The qualitative research highlighted that the Cannock Orienteers were part of a club and regularly used Cannock Chase; they were interested in hosting and running orienteering competitions and travelled nationally and internationally to other events. They promoted the events they ran and had a press officer to do so, they also had a map maker who would set out new routes, and at events they were careful to monitor participants to ensure that all finished and no one got lost. A few of the participants at the GO TRI event at Dalby were triathletes, part of a local club and used GO TRI as a training opportunity. Therefore the orienteers and triathletes were more likely to talk about competitions than participants in the other activities. The Bedgebury Real Spin and Delamere Nordic walking were organised classes that participants booked and paid for a set number of weeks, and these classes were fairly small, i.e. 10–15 people. At the other end of the spectrum, the parkrun at Sherwood was a weekly event which could attract over 200 people. Most of the Bedgebury women participants stated that they had always been active, primarily from school, however many agreed that they had disliked sport at school.

Participants were sometimes travelling a considerable distance to undertake their activities. One of the women at Bedgebury travelled one and a half hours by car to join the Real Spin class, while at Dalby one person travelled 80 miles and another 68 miles to join the GO TRI event. A few people at Sherwood Pines talked about travelling for over 30 miles to participate in parkrun, while others lived nearby. The AF sites are large destination forests and cater both to local people who live nearby and visit regularly, and to those who live much further away. Those who travel a long way can, when they finish, stay to join others in the café (as participants talked about doing at Sherwood Pines, Delamere and Dalby) or stay on site and relax, or do another activity.

All of the participants at Bedgebury knew the site and had visited it before, while others, such as a couple of people at Dalby, had lived near the site but had not visited and knew little of the site until they took up their activity.

The costs of participation in the activities could vary; for example, parkrun is a free event but participants have to pay for car parking on site. The Nordic Walkers and Real Spin participants both paid third-party providers for a block of classes; they also paid for parking at Bedgebury and sometimes at Delamere. The GO TRI event cost participants a small fee and if they travelled by car they would also pay a car-park fee. At Cannock the orienteers paid a membership fee to join the club and also as a club paid a permissions fee for running events on FCE public forest land.

The participants also mentioned that the amount of activity they undertook could change at different life stages, e.g. moving away from activity after leaving school or having children and moving back to activity when reaching their late twenties or after their children have grown up, reaching mid-life or being diagnosed with a health condition.

> 'So trying to fit it [activity] into everyday life is harder and easier at different [life] stages' (Female, Bedgebury Real Spin)

## 5.2. Motivations and important qualities

### 5.2.1. Quantitative data: motivations

Figure 28. Follow-on survey (n=274): proportion of people responding positively to motivations for Active Forest activities.

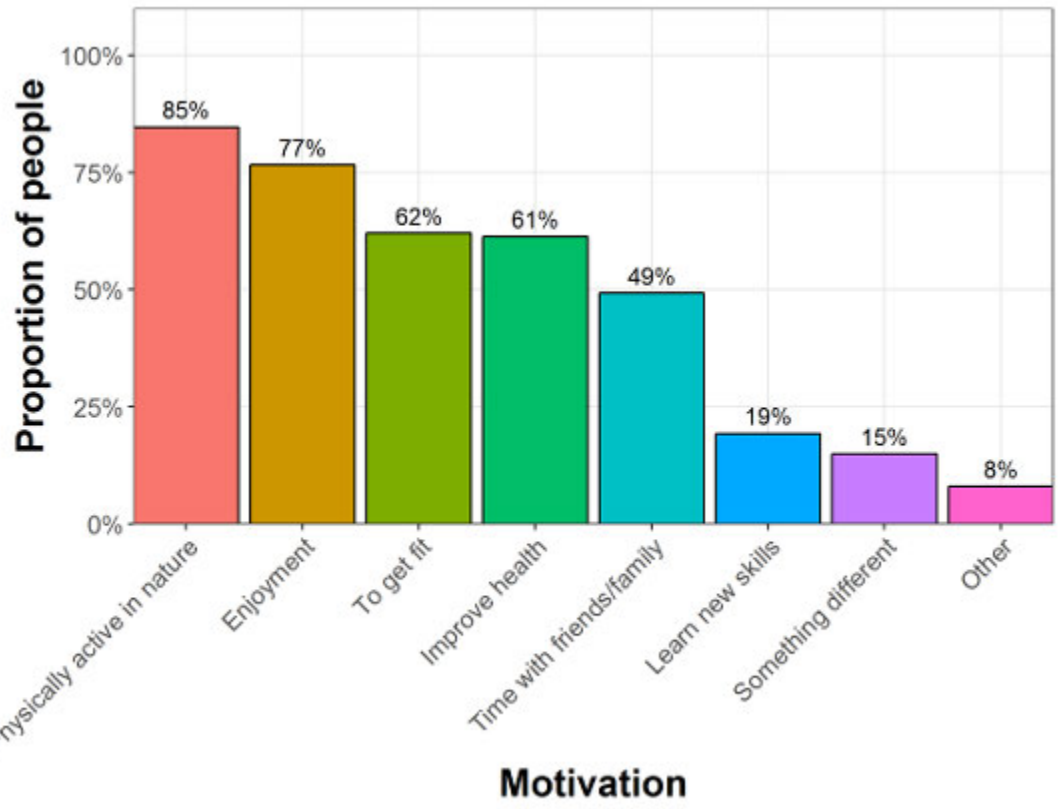


Figure 28 shows the response to motivations for activities from the follow-on survey; the main reasons for people to get involved in these activities were to be physically active in nature (85%) and for enjoyment (77%). Learning new skills and doing something different were not as important in terms of motivations for the majority of individuals, with less than 20% of respondents listing these as important.

### 5.2.2. Qualitative data: motivations

Focus group/interview participants gave a wide range of motivations for getting involved in Active Forest activities. Often the motivations people stated were very similar to the benefits they said they gained from undertaking their activity in a forest environment. The main motivations participants gave are outlined in Table 2. It shows some similar motivations as those highlighted in the follow-on survey; however, it also shows motivations not captured in the survey and illustrates that some people are taking up physical activity at particular stages of their lives, e.g. mid-life or via a diagnosis by a doctor.

Table 2. Motivations outlined by participants for getting involved

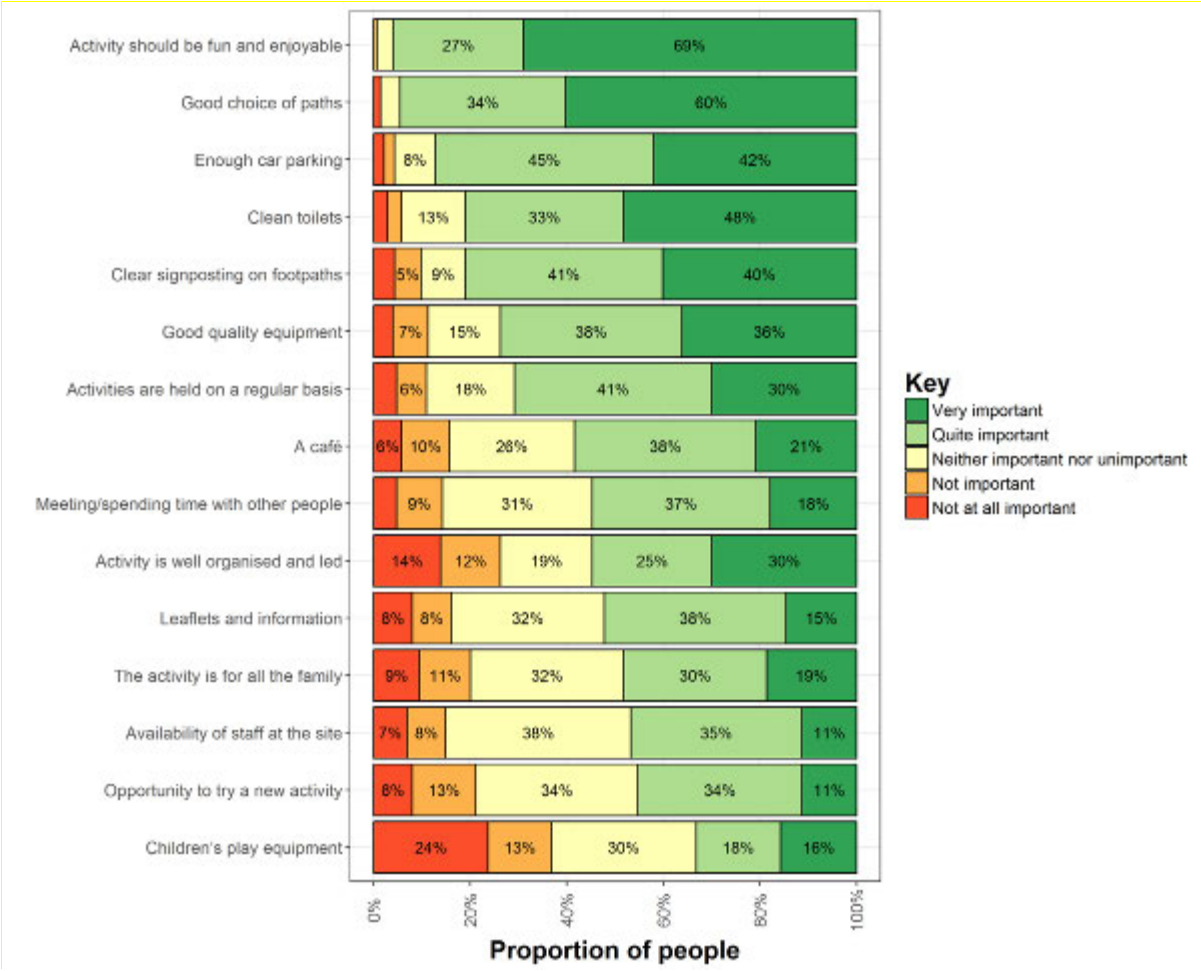
| Motivations | Responses from participants | Activity and forest |
|---|---|---|
| **Social** | Catching up with people | Bedgebury Real Spin |
| | Getting to know people | Bedgebury Real Spin |
| | You meet like-minded people so you talk a lot | Delamere Nordic walking |
| **Fitness and health** | Keep healthy | Bedgebury Real Spin |
| | Health and fitness | Sherwood Pines parkrun |
| | Makes me feel better | Sherwood Pines parkrun |
| | Diabetes diagnosis | Dalby GO TRI |
| | Heart disease and stroke in the family | Sherwood Pines parkrun |
| | Chronic back pain and overweight | Sherwood Pines parkrun |
| | To encourage the children to have active lifestyles | Sherwood Pines parkrun |
| | Good training and speed work | Dalby GO TRI |
| | In the middle of chemotherapy so this is good way to get into fresh air | Dalby GO TRI |
| **Challenges** | Getting to read maps | Cannock Chase orienteer |
| | Challenge of completing a course | Cannock Chase orienteer |
| | Mid-life crisis and challenging myself to do something different | Sherwood Pines parkrun |
| **Being outdoors** | Fresh air | Bedgebury Real Spin |
| | Freedom | Begebury Real Spin |
| | I'd rather do it than go to the gym | Delamere Nordic walking |
| | Every time you run you see something different in the forest | Sherwood Pines parkrun |
| **Confidence and fun** | Join something to learn | Bedgebury Real Spin |
| | Go on different routes | Bedgebury Real Spin |
| | Not get lost | Bedgebury Real Spin |

| | | |
|---|---|---|
| | Thought it might be fun<br>You can go at your own pace, you're not pressured into anything | Dalby GO TRI<br>Delamere Nordic walking |
| **Choice** | Nice to have a combination event [run, cycle, run]<br>You can drop in and out | Dalby GO TRI<br>Bedgebury Real Spin |
| **Low cost** | It's free, we couldn't afford for the family to go to the gym | Sherwood Pines parkrun |

## 5.2.3. Important qualities for woodland activities

Figure 29 shows the responses to Likert-style questions ('not at all important' to 'very important') in the follow-on survey regarding qualities of interest. The top five most important qualities were that the activity should be fun and enjoyable, good choice of paths, enough car parking, clean toilets and clear signposting on footpaths; all five of these qualities were listed as quite or very important by more than 80% of respondents.

Figure 29. Follow-on survey responses (n=274) to qualities of interest.

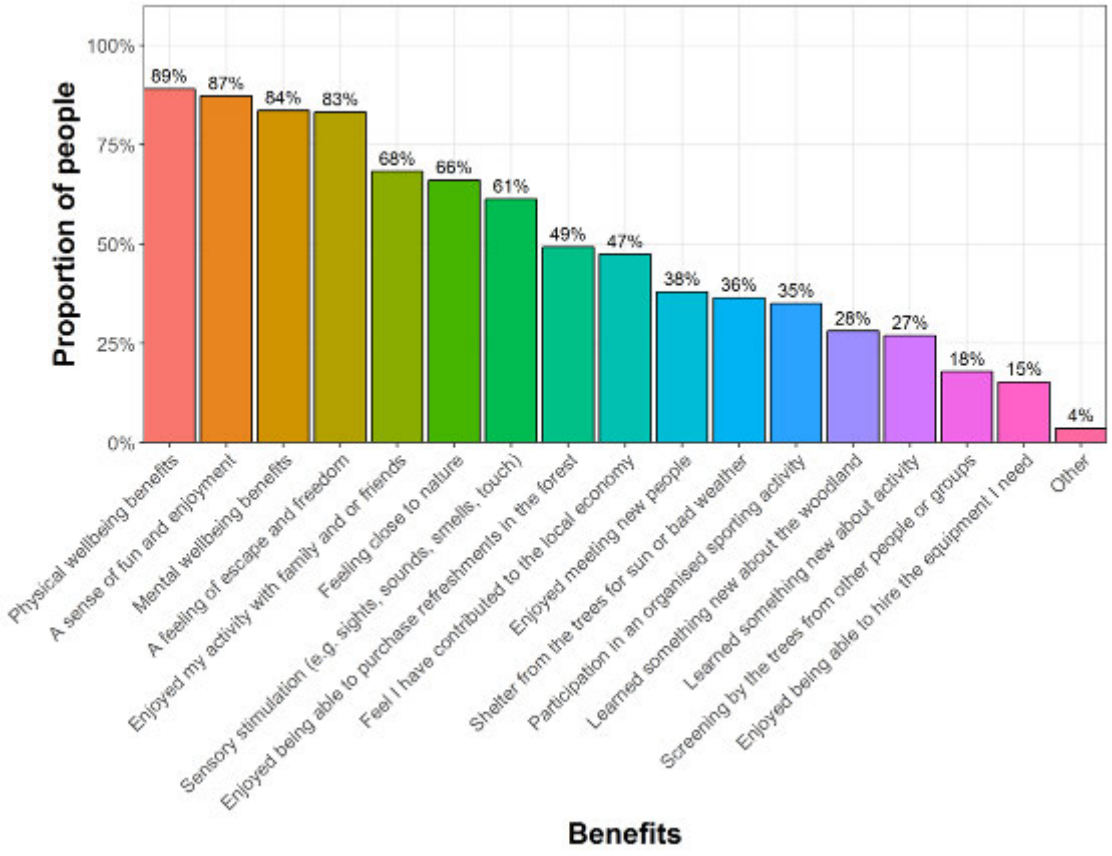


# 5.3. Benefits of getting involved

## 5.3.1. Quantitative data: benefits

Figure 30 shows the benefits of getting involved in Active Forest activities reported in the follow-on survey; physical wellbeing, a sense of fun and enjoyment, mental wellbeing and a feeling of escape and freedom were reported as benefits by more than 80% of respondents. Around half of respondents (47%) felt that they had contributed to the local economy.

Figure 30. Follow-on survey responses (n=274) to benefits of getting involved in Active Forest activities.




## 5.3.2. Qualitative data: benefits

The benefits of getting involved in the Active Forest activities identified in the qualitative data gathering were wide ranging but could be categorised into the following four main categories outlined in this section. Participants talked about the benefits:

- to themselves personally and sometimes for their family;
- of the type of activity they were undertaking;

- of undertaking that activity in a forest environment.

#### 5.3.2.1 Mental wellbeing

All of the participants in the focus groups or interviews talked about mental wellbeing benefits. Participants used terms such as the activity provides 'stress relief', is 'destressing', 'relaxing' or allows you to 'mentally switch off' from everyday stresses and pressures, or gave a sense of freedom, or a good feeling afterwards. For one person it impacted on a specific aspect of their mental health as outlined by the following quote:

> 'I suffer from SAD [seasonally affective disorder] in the winter and if you don't get out it makes you feel down. I get a physical side to SAD: I get dizzy if I stay in the house; if I get out there is an immediate impact so it can help with day-to-day living and mental health. They do say being in the forest environment is better than any kind of cure you can get from the pharmacy…' (Female, Bedgebury Real Spin)

For others it is about decompressing and gaining perspective:

> 'Carol loves it because she says when you've had a really bad day you can come and forget all about it. If she is really down she comes out. When she has finished everything is back in perspective again.' (Female, Bedgebury Real Spin)

A couple of the orienteers at Cannock Chase talked about the mental stimulation and the challenge offered by orienteering, with its focus on map reading and the concentration needed to follow an orienteering course. One of the men also outlined the benefits to mental and physical health by stating:

> 'One of the guy's daughters came along to a training evening years ago and she did a blood pressure test on us before we went out [running] and when we came back it had dropped [the blood pressure] for everyone.' (Male, Cannock Chase orienteer)

A fellow orienteerer went on to outline:

> 'A study said using the brain while exercising is good for dementia. Endurance athletes train the mind as well – the body is fit but the brain gives in. It's about mental exercising and orienteering does that for you.' (Male, Cannock Chase orienteer)

Other orienteering participants at Cannock Chase neatly illustrated the close links between physical and mental wellbeing, and linked the mental, physical and social side together:

> 'I find running relaxing; if I've had a hard day at work I have a hard run which is relaxing.' (Male, Cannock Chase orienteer)

> 'Mental challenge as well as physical. The social side is very important and gives you a way into friendships whichever part of the country you move to.' (Male, Cannock Chase orienteer)

Mental-wellbeing benefits came from a combination of being away from everyday stresses in a different environment. The fact that the environment was considered beautiful and connected people with nature was also seen as particularly important.

#### 5.3.2.2 Being active: physical wellbeing

Physical-wellbeing benefits were talked about although not quite to the same extent as the mental-wellbeing benefits. One of the Nordic walkers talked about the strength of her legs improving over the weeks and how using poles for walking was useful in helping older people deal with the uneven terrain of the forest floor. The Nordic walkers stated that it was more physical than normal walking as they were using their upper body as well by using their poles to propel themselves forward.

> 'F[11]1: 'You've got the challenge of uneven terrain and some hills and then level ground.'
> F2: 'That's when you realise how good two poles are because it makes it so much easier, walking with poles. You think: Oh God, this is fantastic. It makes it easier but you're still getting the exercise. And it helps you balance coming down. My balance isn't very good and I find the poles help when I come down a hill.' (Female, Delamere Nordic walking)

Exercise made the 'heart beat faster' according to a Dalby GO TRI participant.

The physical benefits could also be important for health conditions, in managing those conditions or trying to lessen their effects as the following exchanges outline.

> F: 'I need to get back into it [physical activity] as well as I have had a health issue. I have just been diagnosed with rheumatoid arthritis – so he has cancer and I have this so we are a right pair.'
> Interviewer: 'With arthritis are you supposed to keep moving?'
> F: 'Yeah, but I didn't know what it was and I was taking it quite steady for the last couple of months to find out, and now I know, I know what I can do.'
> M: 'So things like load-bearing exercises are very good; some people think with something like that you shouldn't do any sport but it's the opposite really.'
> F: 'I don't think anyone else can have an excuse not to do it if we can, we trump everyone. The more events like this the better and we are going to continue doing them.' (Female and Male, Dalby GO TRI)

> 'I was recommended to do this by a physio as I have a really bad right knee and I was running but she said try cycling as it's low impact. I didn't imagine it was but

[11] F= female and M = Male. Numbering is used to denote different people speaking, e.g. Female 1, Female 2, etc.

> it's been great. Yes, my knees are so much better definitely.' (Female, Bedgebury Real Spin)

#### 5.3.2.3 Social-connection benefits

Social connections were often an important benefit of the activities people undertook and this could encompass spending time with friends and family, meeting new people and gaining confidence by joining others.

The social side of the activities could be important for participants, even for those not currently carrying out the activity.

> M2: 'At the moment I don't orienteer; we just do the social side.'
> F: 'You host us in the winter [e.g. at their home].'
> M2: 'Yes, we go to someone's house and do fish and chips or an Indian and sometimes do street orienteering in the dark.' (Male and Female, Cannock Chase orienteering)

For one of the women cyclists joining a group was important in case of an accident:

> 'That's why I started coming 'cause I came on my own and then I fell off and it's a bit miserable falling off on your own and that is why I joined the group.' (Female, Bedgebury Real Spin)

It was also seen as beneficial that the Real Spin class was targeted at women rather than being mixed:

> 'Men are too competitive and change the dynamic and the conversation and they bump you off the trails; they're behind you with their breaks on.' (Female, Bedgebury Real Spin)

Finding a group with similar interests was also of benefit:

> 'There was a group of us who all had children at the same time so we would meet up orienteering, but we also met up outside of it as well. There has been a lot of bonding and strong friendships.' (Female, Cannock Chase orienteering)

Meeting new people was also seen as important:

> 'It's a good way of getting outside and meeting new people. There are a few new people today and some I've seen before. Coming to a place like this, it's great!' (Male, Dalby GO TRI)

> 'I love it 'cause it's with a group of people I've met. I've met my fella there who loves fitness and it's just great.' (Female, Dalby GO TRI)

For a mother and daughter-in-law, running together was their way to socialise.

> F1: 'We just look at what is available and that is our socialising really, isn't it?'

F2: 'Yes.'
F1: 'Getting together and doing something active rather than going out and having a drink, like most people do.' (Females, Dalby GO TRI)

At parkrun the activity was seen as being for all the family.

F1: 'We've been doing it, me and Amy [daughter, aged six], for a year.'
F2: 'Tomorrow I'm going to be seven.'
F1: 'She is pretty speedy so we take it in turns to run [the woman and her husband have a younger boy] and sometimes we have someone to look after him so we can run together and my mum comes as well but she's on holiday today. Amy says she likes running to make friends.' (Females, Sherwood Pines parkrun)

The importance of family activity was an important thread for many participants as mentioned by a husband and wife at Dalby:

'We have started bringing our children and grandchildren and they love it and think it's brilliant.' (Male, Dalby GO TRI)

#### 5.3.2.4 Learning and developing

Participants talked about learning and testing themselves via the various AF activities.

'To me the biggest hurdle is the first bit of starting off. The first time I completed a course on my own I just cried at the end – from relief and pride.' (Female, Cannock Chase orienteering)

Orienteering was also viewed as providing participants with the chance to develop their map-reading and concentration skills which could transfer to other areas of life and give participants confidence about their abilities. For one participant it was about 'testing of their ability to navigate'. At Sherwood Pines a participant talked about the 'sense of accomplishment' they gained from getting involved in parkrun.

Interviewer: 'Do you do all your parkruns at Sherwood?'
F: 'I did one last week. I was really excited. The first time I came here I cried; I didn't speak to anyone and felt really embarrassed. I met you [speaking to another participant] on my first or second week. I didn't chat to anyone much but you were one of the first people I met. I met you at Newark, and last week I ran in London.' (Female, Sherwood Pines parkrun)

While at Delamere the fact that in the Nordic walking group there was 'no intimidation' to go further or faster was important to a participant. Passing on tips and knowledge was also taking place, for example:

'It's fantastic for mental work and you have to learn to concentrate for long periods of time. Gina was saying that on long legs [of the orienteering course] she loses concentration, so I said: "Break it down into shorter legs." There are techniques to make you mentally alert. It's great for mental stimulation, and you

must want the mental challenge otherwise you would just go for a run. A lot of people can't cope with that.' (Male, Cannock Chase orienteering)

Also participation could lead to other opportunities:

'I like exploring new places; I went to Sweden for a couple of weeks to spectate at the world champs [championships]. Last year we went to Scotland; one of the areas didn't have any paths pretty much. I opened my map and there was forest and in the bottom was a bit of open [ground]... I was only 12 then …' (Young female, Cannock Chase orienteering)

## 5.4. Benefits of activity in a forest environment

### 5.4.1. Qualitative data: benefits from engaging with forests

The qualitative analysis shows that participants enjoyed the flora and fauna they saw on site, with Cannock participants noticing adders, birds and wild boar (in another forest they had competed in). Dalby participants talked about seeing foxes, badgers, deer and owls, while birds and birdsong were noticed by the Delamere Nordic walkers.

FI: 'When I'm on my own there are certain times of the year we see deer.'
F2: 'We see some amazing birds.'
F1: 'They've got lovely flowers – about two months ago there were amazing flowers at the top.' (Females, Bedgebury Real Spin)

For some just being outdoors was important as a contrast to spending a lot of time indoors. It could also recreate the feelings of freedom they had as children, as these Bedgebury participants outlined.

F1: 'There is something about doing exercise outdoors, 'cause so much is being stuck indoors.'
F2: 'The gym is boring.'
F1: 'I did a spin class once indoors, but I felt so restricted, I couldn't stand it. I thought: I want to go somewhere on this thing, but being outside in nature and the fresh air is really good. Someone said to me a while ago it's like being eight again, because if I wanted to go anywhere as a child I had to go on a bike. You didn't think of it as exercise then, you just went out on your bike. But then I didn't do it for a year because of commuting and then when I got back on it, it was like, yeah, I feel like a child again. Freedom – it's lovely.' (Females, Bedgebury Real Spin)

Cannock, Dalby and Delamere participants talked about the varied terrain found in the forest environment, the unevenness of the terrain and the hills on some of the sites that added to their enjoyment and challenge, and were of interest to them. The aesthetics of the forest environment were also mentioned by many participants who talked about the beauty of the sites and enjoying the scenery. Cannock and Sherwood Pines participants also talked about the atmosphere of the forests which included being away from

everyday life, the forests being traffic free and the opportunity to be in the fresh air, and the sense of freedom this gave them. Exercising in the forest was also different from gym exercise which could be intimidating.

> F1: 'Definitely, some people have put a big barrier up against exercise as they see it as going to a gym and feeling insecure and feeling they can't do what other people can do – it's intimidation. There's no intimidation about Nordic walking.'
> F2: 'They're all so slim in the gym.'
> F3: 'I wouldn't know I've never been in one.'
> F2: 'I used to go but I didn't like the air-conditioning and the sweaty smell.'
> (Females, Delamere Nordic walking)

Seeing changes in the seasons was also important, and participants gained a sense of accomplishment from undertaking their activity in different conditions such as snow, rain, sleet as well as in the sun.

> 'I enjoy the fresh air; I just can't stand being cooped up indoors, but that is a personal thing. I have always been like that, whenever I can I like to be outdoors.' (Male, Dalby GO TRI)

> 'Yeah, we come quite regularly; we do the cycleways and we come for a run, for a walk – it's a beautiful place, even in this weather [snow and wind] it's beautiful.' (Male and female, Dalby GO TRI)

A number of participants talked about changes they had seen in the forests over time. For example, Bedgebury and Dalby forests have significantly changed in recent years with the development of new mountain bike and walking trails, a children's play area, Go Ape, and a visitor centre and café. These changes attract families but also can become a victim of their own success as the following exchange illustrates.

> F1: 'Yes, definitely good changes because years ago it wasn't really for families, it was just a big walk with lots of trees.'
> F2: 'I don't find it so nice actually in the holidays, it's too busy.'
> F1: 'There is a real danger of getting too many people here; when the car park is full it's difficult.'
> F3: 'We try to come early and leave about 11.00.'
> F1: 'Also there is the cost of the parking – if you live close enough that you use the membership it's good value, but if you don't and you just come in for a walk or to walk the dog then it's expensive.'
> F2: 'There are very good facilities here.'
> F3: 'Yes, but there is in other places and they are less expensive.'
> F2: 'Membership is beneficial.' [A FCE discovery pass for a set cost per year allows visitors to park at the site as many times as they want, provides discounts for a range of products such as Go Ape and forest holidays, and also provides information on activities and events in the forest.] (Females, Bedgebury Real Spin)

The changes had created new and more diverse opportunities that could appeal to different ages and were often not seen as costly.

> Interviewer: 'You said the forest had changed since you were young?'
> M1: 'Yeah, there are more people using it, it's more diverse and it has more opportunities. It's what other facilities you can get into the forest to attract people to it.'
> F2: 'I don't think parkrun is expensive [the parking].'
> M2: 'Our son was there today, he is 32 – when they were little we used to bring them up here. Where else could you go for £42[12], that's for a year's membership. There is no way you can take a family out for that kind of money for a day. Over the last few years we have started to get more into the forestry. There are things up here for youngsters and adults whether it's walks or a Gruffalo trail and when you come up in the summer and see how many people use it, even this time of year [winter] people come up.' (Males and female, Dalby GO TRI)

> 'We have a pass on the car, we buy it at the beginning of the year and then it's cheaper that way.'
> Interviewer: 'Does that make it worth it?'
> 'Oh God, yeah, especially if you come regularly and it's a beautiful place and my partner is only down the road in Pickering, so it's only round the corner. So we regularly cycle out of there and up here and have a run round and cycle back. It's a fantastic cycling area.' (Female, Dalby GO TRI)

> 'Here there's been a huge change, but for the good. I think it brings more people in, the facilities up here are brilliant and it's great, it gets people outside and that is no bad thing.' (Male, Dalby GO TRI)

## 5.5. Challenges of undertaking activity in a forest environment

### 5.5.1. Quantitative data: challenges

Figure 31 shows the challenges of getting involved in Active Forest activities reported in the follow-on survey. The most common response was that there were no challenges/barriers, reported by a third of respondents. The most widely reported challenges were poor weather and forest work, both reported by 27% of individuals. Far fewer individuals reported challenges (Figure 31) versus benefits (Figure 30).

Figure 32 reports the improvements that respondents suggested to encourage forest visits (free text coded into categories). The most frequently suggested improvements that could be acted on (i.e. beyond weather etc.) are more and better quality mountain-bike trails, reported by 10% of respondents.

[12] Price is now £48 per year.

Figure 31. Follow-on survey responses (n=274) to challenges of getting involved in Active Forest activities.

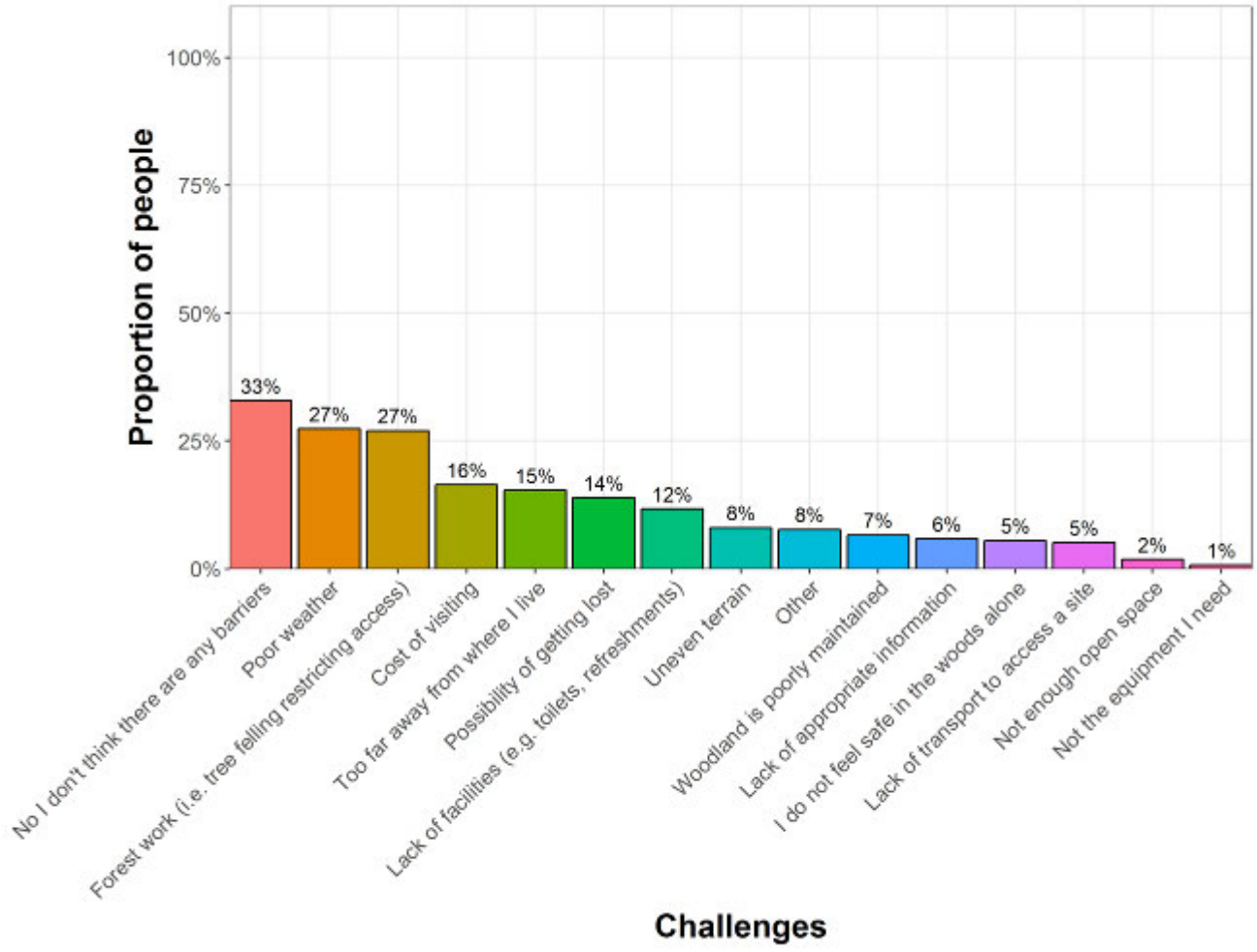
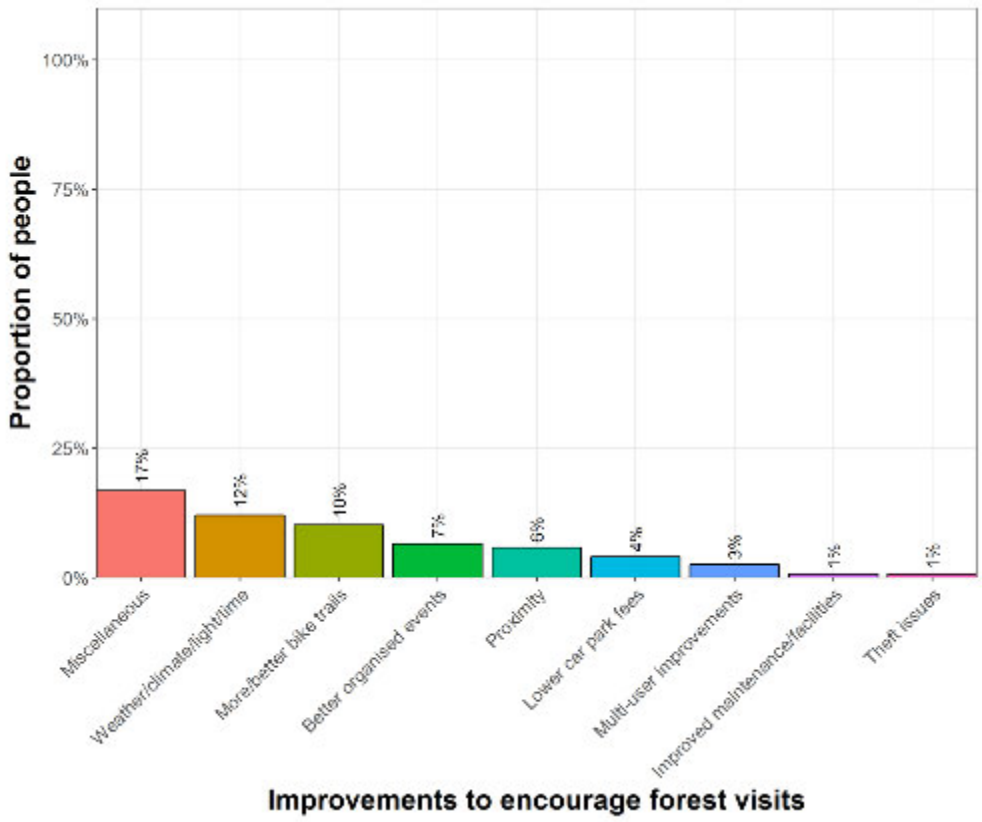


Figure 32. Follow-on survey responses (n=274) to potential improvements to encourage forest visits.




## 5.5.2. Qualitative data: challenges

Few challenges were identified by participants in the qualitative research. Sometimes the weather was mentioned as a challenge, but that could be viewed positively when it gave people a sense of achievement to do their activity in poor or challenging weather. The orienteers at Cannock Chase talked the most about challenges and these related to getting people involved and interested in the sport, especially reaching out to young people, getting people to help out and volunteer with orienteering events, sometimes clashes between different users such as mountain bikers and trying to get permission to set up new orienteering courses:

> 'It can be immensely frustrating; it's trying to explain to people who don't understand the sport, and some people who come at it with a conservation hat on think that any sport on sensitive areas is bad, but there is no evidence to support that. We have said we are prepared to pay for some research to assess what impact the sport has on these sensitive areas and we are not finished with that discussion, it's something we are going to talk to the forestry about next week.' (Male, Cannock Chase orienteering)

Unlike some of the activities that take place using the same route, orienteers are looking for different routes that challenge their skills of running while reading a map. Parkrun volunteers described the challenge of including and managing CaniX runners (people running with their dogs) at the parkrun events. They also outlined that participants could get annoyed if the barcode equipment did not work and they did not get a time for how long their run took.

## 5.6. Evidence of behaviours - sustaining and changing

Behaviour change and sustaining behaviour related to the AF programme could take place in the following ways:

- As a direct result of the AF programme – enabling people to change activity levels or try new activities
- Through the AF programme having a knock-on effect on friends, relatives of the participants or others they know
- As a result of enabling the participant to sustain their physical activities
- Transferring positive activity behaviours to other settings.

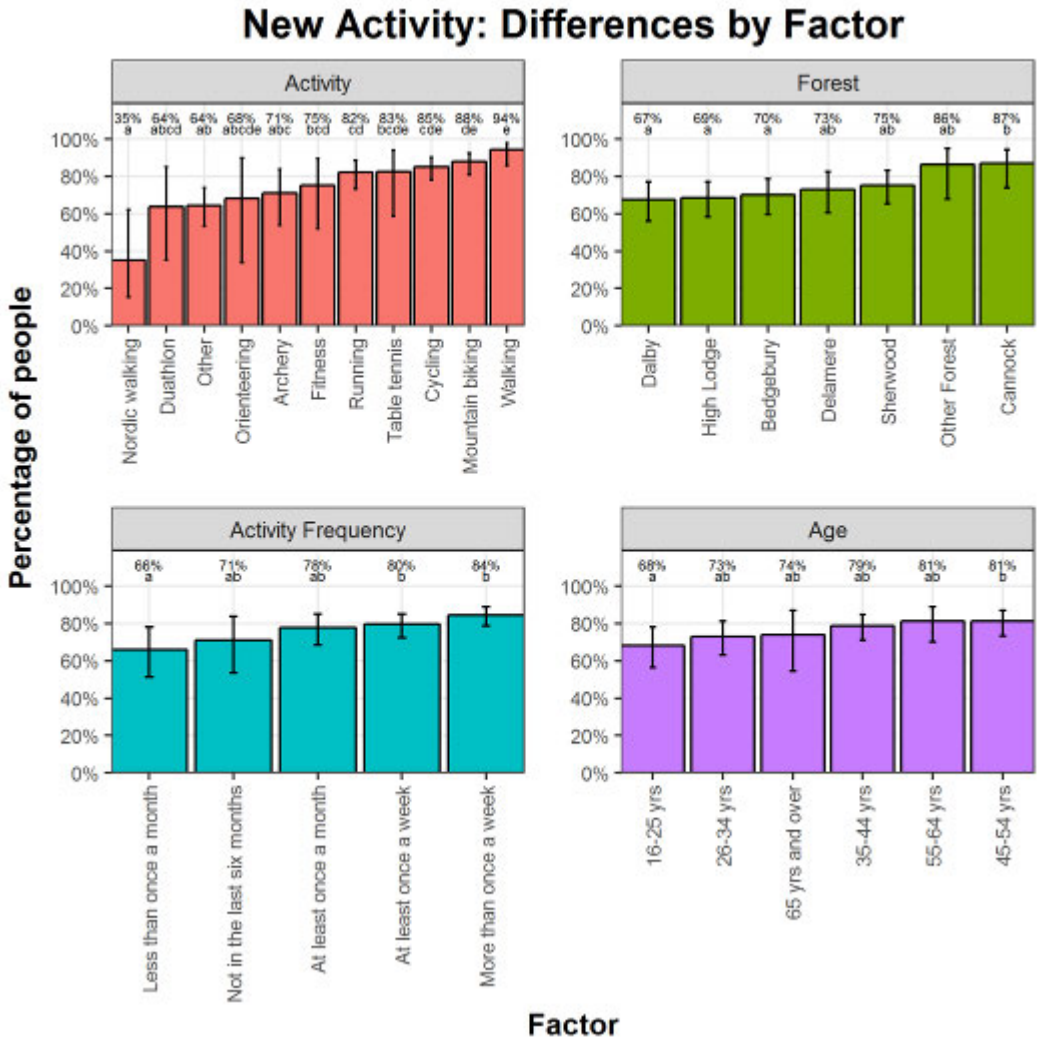
The quantitative data from the participant and follow-on survey were analysed to determine the incidence of behaviour change and whether change was associated with any traits recorded within the surveys.

### 5.6.1. Participant data: statistical analysis of new activities

Overall, 83% of respondents in the participant survey reported the activity that they were undertaking was a new activity[13]. Data were analysed to determine whether any factors in the participant survey (activity, forest site, frequency of activity, age category, accompanied by under-16s (yes/no)) were significant in predicting the likelihood of individuals undertaking a new activity. A full breakdown of statistical analysis and post hoc tests are provided in Appendix 3, Tables A3.15 and A3.16. All factors, except being accompanied by under-16s, were significant drivers for predicting whether or not the activity undertaken was a new one for the participant. The strongest driver was the activity itself (see Tables A3.15 and Figure 33), followed by forest site, frequency of activity and age.

[13] There is potential that some participants were answering based on not having undertaken the activity in that particular forest before, rather than it being a totally new activity for them.

Figure 33. Participant survey (n= 2,206): estimated proportion of individuals undertaking new activities by activity, forest site, frequency of activity and age (results averaged across other three significant factors). Lettering (a, b, c, etc.) indicates significant differences (p<0.05; e.g. 'a' is significantly different from 'b', 'ab' is not significantly different from 'a' or 'b', 'c' is significantly different from 'a', 'b' and 'ab').



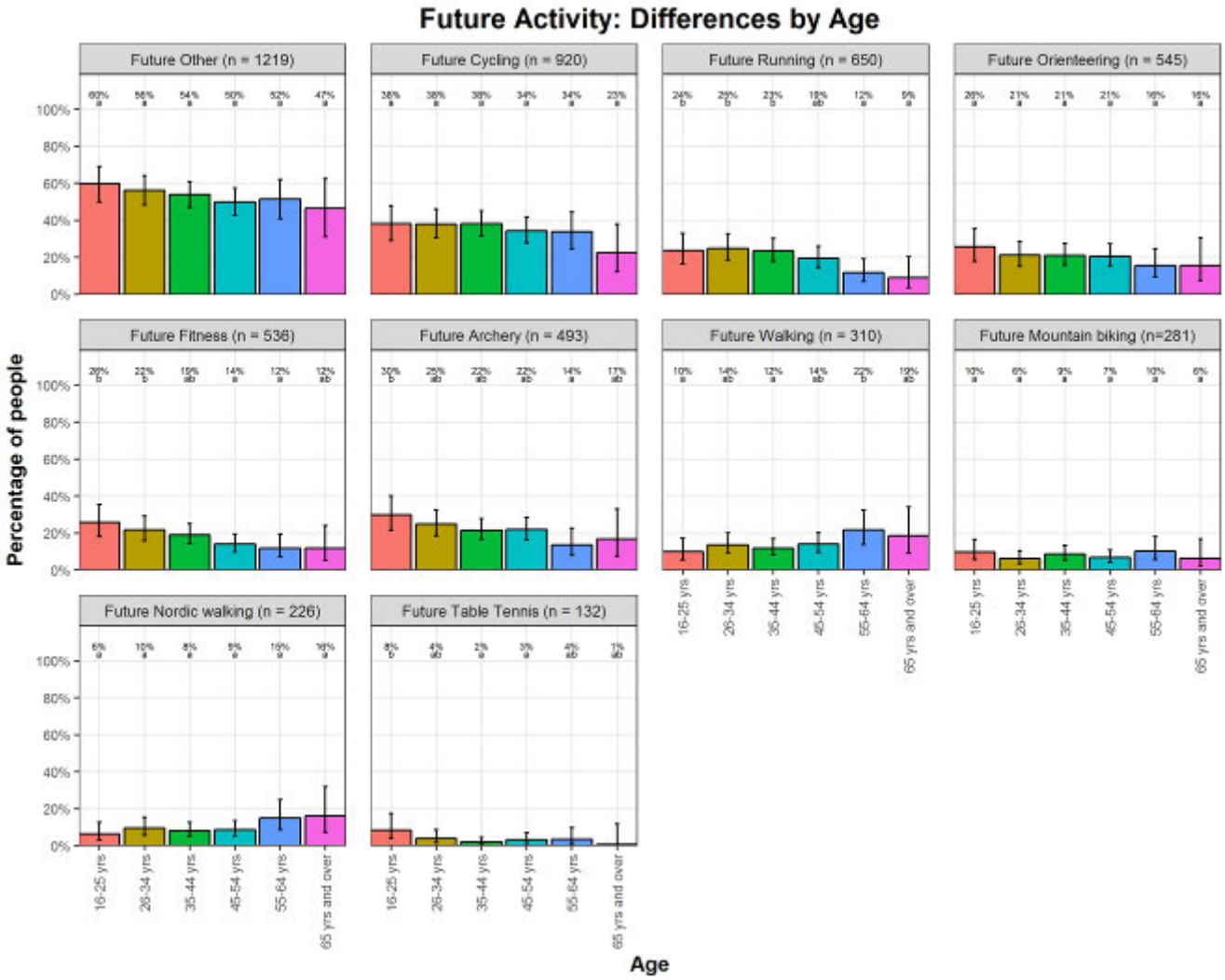

The most likely new activities were walking and mountain biking, with Nordic walking and duathlons significantly less likely to be new activities (Figure 33). Very active individuals were most likely to undertake new activities, with middle-aged individuals more likely to undertake new activities than younger individuals (Figure 33).

## 5.6.2. Participant data: statistical analysis of future activities

Overall, 98% of respondents in the participant survey reported an interest in a future activity. Data were analysed to determine whether any recorded traits in the participant survey (activity, forest site, frequency of activity, age category, accompanied by under-

16s (yes/no)) were significant in predicting the likelihood of individuals undertaking a new activity.

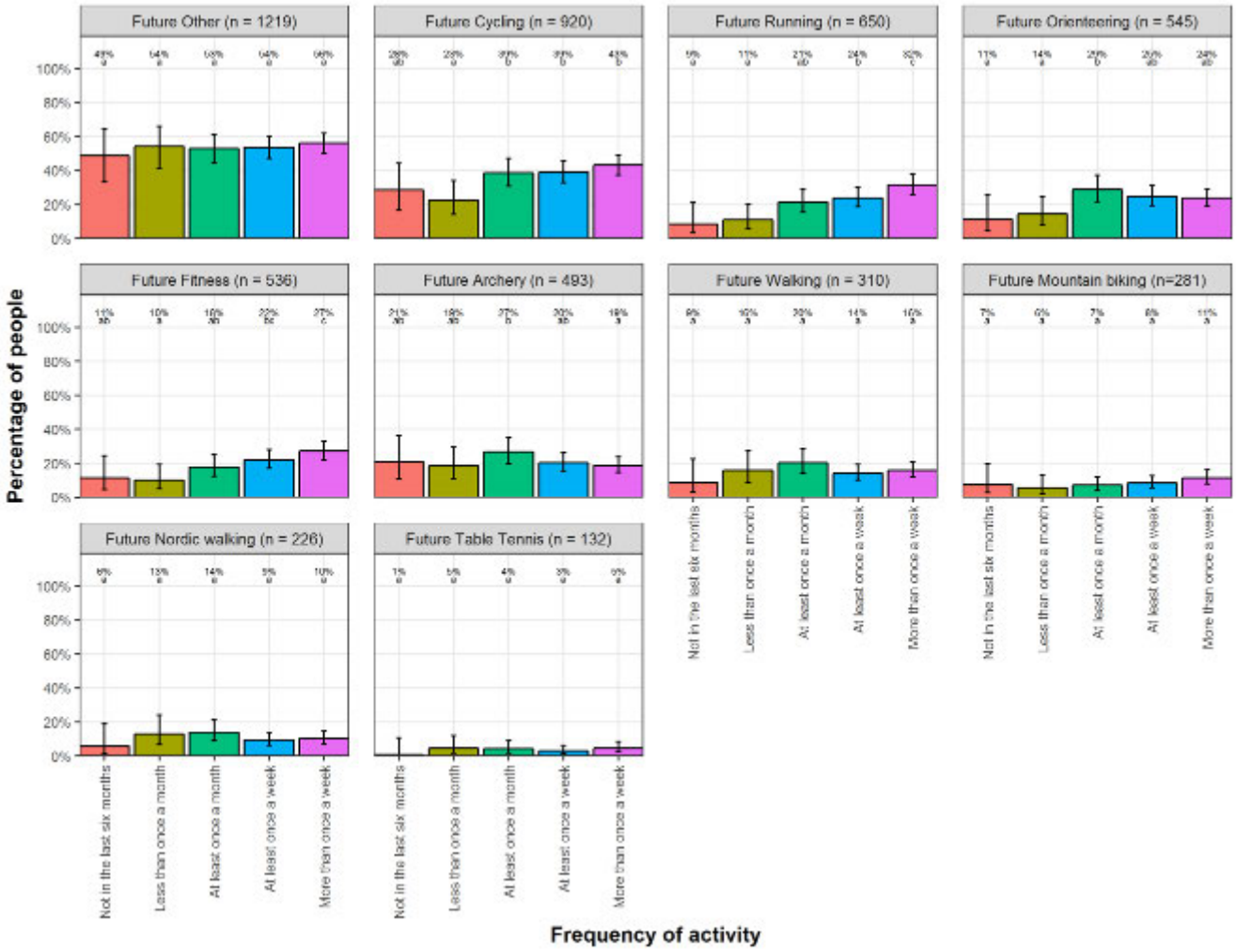
Figure 34. Participant survey (n=2,206): estimated proportion of individuals expressing interest in future activities by age. Results are averaged across other significant factors (frequency of activity, new activity (yes/no), accompanied by under-16s (yes/no) and forest site). Lettering (a, b, c, etc.) indicates significant differences ($p<0.05$; e.g. 'a' is significantly different from 'b', 'ab' is not significantly different from 'a' or 'b', 'c' is significantly different from 'a', 'b' and 'ab').




A full breakdown of statistical analysis and post hoc tests are provided in Appendix 3 (Tables A3.17 to A3.21). Age, frequency of activity and forest site were most likely to be significant drivers of individuals expressing interest in specific future activities (see Table A3.16). Figures 34 and 35 highlight some of the more interesting results related to the predicted proportion of participants undertaking the main activities by frequency of age and activity.

For age (Figure 34), the general trend was for younger people to be more likely to express an interest in future activities than older people; however, this trend was reversed for walking and Nordic walking.

Figure 35. Participant survey (n=2,206): estimated proportion of individuals expressing interest in future activities by frequency of activity. Results are averaged across other significant factors (age, new activity (yes/no), accompanied by under 16s (yes/no) and forest site). Lettering (a, b, c, etc.) indicates significant differences ($p<0.05$; e.g. 'a' is significantly different from 'b', 'ab' is not significantly different from 'a' or 'b', 'c' is significantly different from 'a', 'b' and 'ab').




For frequency of activity (Figure 35), high-impact aerobic activities (running, fitness) were more likely to be chosen as potential future activities by very active people, whereas more moderate impact activities (orienteering and archery) were favoured by individuals who undertook sport around once a month. Inactive individuals (no sports exercise in the last six months) tended to be the least likely to express any interest in all future activities.

### 5.6.3. Follow on data: return visits

The follow-on survey provided data on the actual return visits made by individuals who initially filled out the participant survey. In total, 91% of individuals completing the follow-on survey had made further visits to woodland for activities since the participant survey. The small sample size (n=274) limited the possible statistical analysis on the data, but comparisons could be made on a forest site-level. Figure 36 shows that respondents at Delamere were less likely to return to do the same activity recorded in the participant survey versus most of the other forest sites.

There were no significant differences across the forest sites in the proportion of individuals returning to do a different activity to that reported in the participant survey. However, on an average 77% of individuals stated they returned to woodlands to undertake a different activity.

There were no significant differences across the forest sites in the number of different activities reported by individuals returning to do a different activity to that reported in the participant survey; an average of 1.2 different activities were reported per person. This indicates that, on average, each respondent returned to the forest site to undertake at least one different activity to that initially undertaken.

Figure 37 shows the proportion of individuals reporting activities undertaken in the follow-on survey, broken down by activity reported in the participant survey. Although the small sample size precluded statistical analysis, Figure 37 indicates some interesting patterns in the data:

- As expected, individuals tended to return to the forest sites to undertake the same activity as that reported in the participant survey (cycling and mountain biking appear to show some crossover here).
- Regardless of activity reported in the participant survey, walking proved to be a popular return activity.
- All individuals reporting orienteering in the participant survey returned again to do this activity. They were also the most likely to return to do other activities, with at least 10% of respondents undertaking six other activities beyond orienteering.
- People who were walkers in the participant survey were the most likely to report no additional activities beyond walking (29% of respondents).

Figure 36. Follow-on survey (n=274): estimated proportion of individuals returning to do the same activity as that in the participant survey, a different activity to that in the participant survey, and the average number of different activities, broken down by forest site. Lettering (a, b, c, etc.) indicates significant differences between forest sites ($p<0.05$; e.g. 'a' is significantly different from 'b').

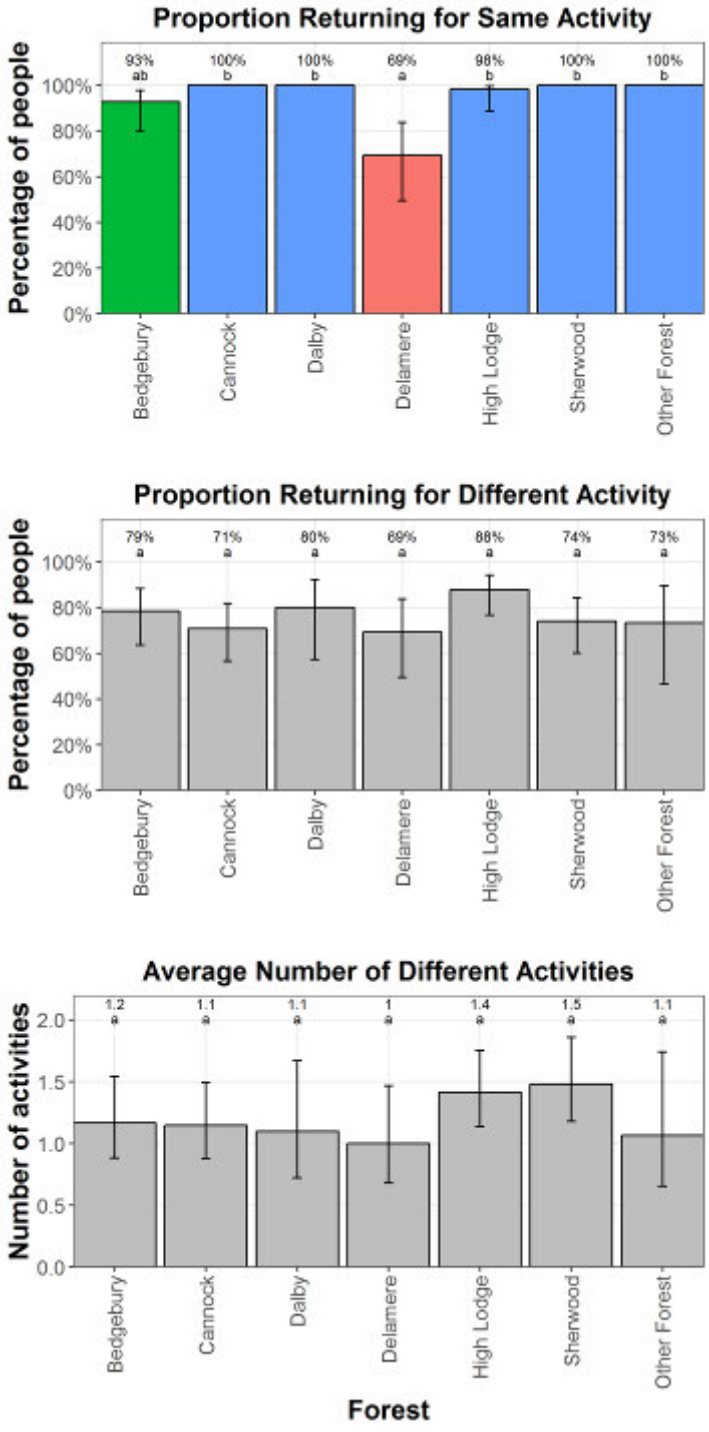
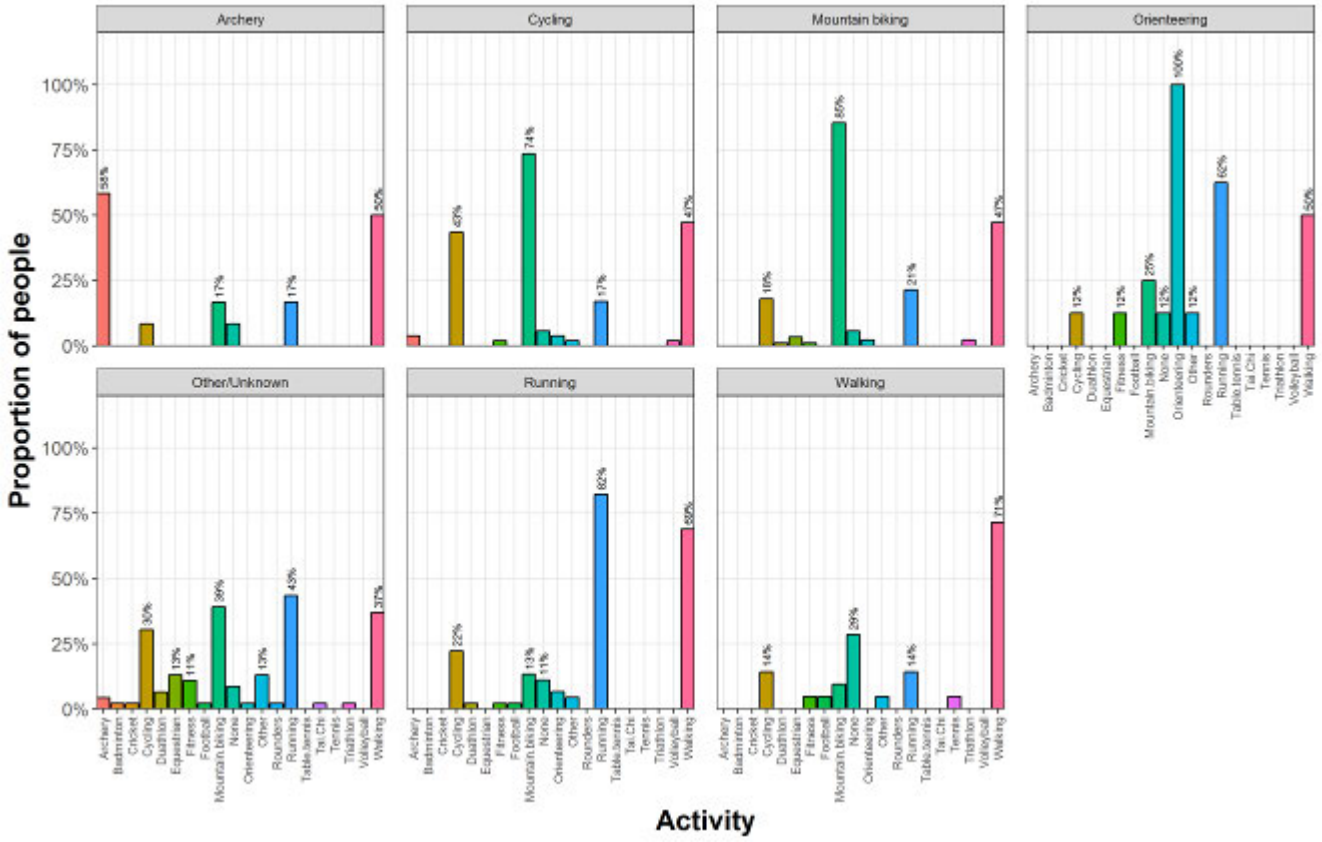


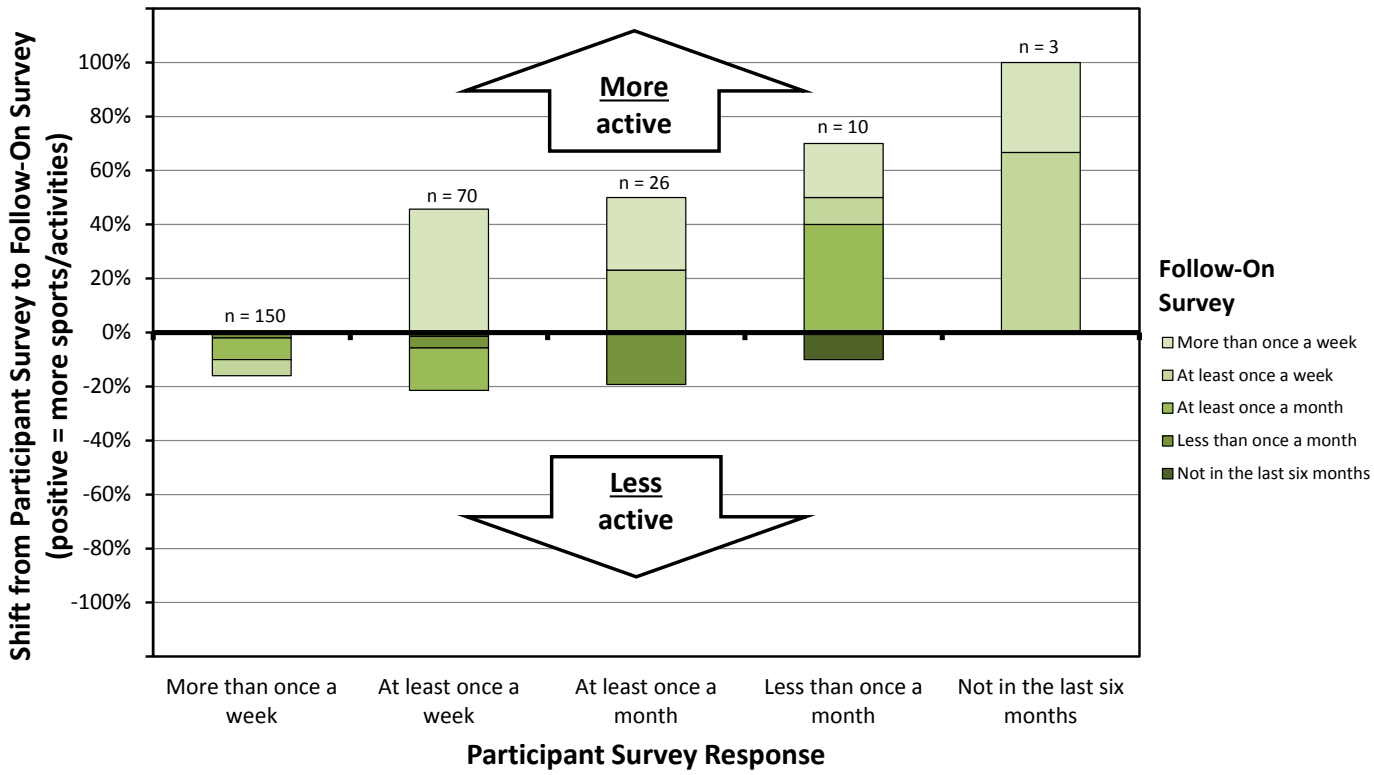
Figure 37. Follow-on survey (n = 274): proportion of individuals reporting activities undertaken, broken down by activity reported in the participant survey (panel heading (grey) indicates participant survey activity).




## 5.6.4. Participant data: change in frequency of activity between the participant survey and the follow-on survey

Focusing on groups of less active respondents from the participant survey (Figure 38: at least once a month, less than once a month, not in the last six months, n = 39/259 matched individuals = 15.1%), there is a significant increase in sporting activity in these individuals ($p < 0.001$, $V = 384$, Wilcoxon's signed rank test) between the participant survey and the follow-on survey. This indicates a significant association between attending the forest site as part of the Active Forest programme and increased levels of activity for those less active individuals completing the participant and follow-on survey. All individuals who had not been active in sport in the last six months in the participant survey moved to being active at least once a week or more than once a week in the follow-on survey; however, this group made up a small proportion of the total sample (3/259 matched individuals).

Figure 38. Comparison of level of activity reported in the participant survey and follow-on survey (n = 259). Positive percentage = individuals doing more sports/activities in the follow-on survey versus the participant survey.




## 5.6.5. Qualitative data: behaviours

The Bedgebury Real Spin instructor suggested that the women in the spin class had gained in fitness from undertaking the classes but also improved proficiency and confidence in terms of their speed and in the way they tackled obstacles on the routes, which they would not have had the confidence to do at the beginning of their Real Spin classes. One of the women in the spin class outlined that her son had taken up mountain biking because he wanted to follow what she was doing, highlighting that women can act as role models for their children.

> F1: 'It's good for your children to see you going out and doing things, you get out of your comfort zone.'
> F2: 'My teenagers probably couldn't do some of the routes I do, for once they'll be like, "My goodness mum can you really do that?"' (Females, Bedgebury Real Spin)

Others thought it was an opportunity to bring the family and felt family activity was important:

> 'It would be quite good to come with the family, and now you know this run and that run and there are runs I can take the children down.' (Female, Bedgebury Real Spin)
> 'It is a family sport and you can all have a go. It's not just watching dad run or mum and you can do harder routes as you get confidence. It can be expensive if there are four or five of you going.' (Male, Cannock Chase orienteering)

For a couple of the men at Dalby the GO TRI event was the first time they had undertaken GO TRI and for one of the men it was the first time he had been running; he usually cycled.

Health reasons were given by some for changes in behaviour. For example, at Dalby one man started to become more active after a diagnosis of diabetes. Another man when asked if he would try the GO TRI again stated:

> 'Yeah, I want to get fitter in general. I lost a stone and a bit last year and I want to keep that off; I feel better in myself.' (Male, Dalby GO TRI)

Women at Bedgebury talked about fitness and a better ability to focus after their activity, which could have knock-on effects.

> F1: 'Well when you feel fitter you can do more, you have more energy to do more, even paperwork.'
> F2: 'Yes, definitely, because it increases your ability to focus better. And it's good for dexterity as well as you have to navigate obstacles, spatial awareness going through the trees.' (Females, Bedgebury Real Spin)

Three women talked about stopping their physical activity once they had children and only getting back into fitness after the children had grown up.

> 'I guess I stopped for a long time when I had the children. This is my daughter-in-law [they completed the GO TRI event together]. I stopped when I had the children, put on a bit of weight and then she [daughter-in-law] encouraged me to get back to it and do some classes and things and I picked it up about 10 years ago [age 50].' (Female, Dalby GO TRI)

One of the men at Dalby outlined how he did not start anything in terms of fitness until he was 29 years of age:

> 'I was three stone heavier than now and drank a lot and ate a lot and since then I've been in and out of running, but trying to keep fit and keep the weight off, so I run four times a week.' (Male, Dalby GO TRI)

For a woman undertaking the parkrun at Sherwood Pines, the activity made a very big difference and led to significant behaviour change:

> 'Massive, massive difference. I've lost one stone nine pounds. My first run was here [at Sherwood Pines] 12 weeks ago. I've come off anti-depressants; this just

> keeps me going. Daisy is my niece [they do the parkrun together], and it's wonderful for me because I never thought my niece would want to come out with me. So now we come every week and have aunty and niece time together … so this is a massive behaviour change for me.' (Female, Sherwood Pines parkrun)

Another woman outlined a similarly significant behaviour change in her life:

> 'I used to be 21 stone, so I have lost 10.5 stone. I got to about 16 stone and then I started fitness but with the help of Paul [a spin class instructor] sorting me out and giving me encouragement.'
> Interviewer: 'What was the trigger that made you start to think I'm going to lose weight?'
> 'I was 46 years old and I couldn't walk. I was walking with walking sticks to walk the dog. I had a bad knee. The doctor wouldn't do anything and said I was too young, so basically he said you need to lose weight. And I was in so much agony; it took me three months from the doctor telling me to join slimming world. In 19 months I lost 10.5 stone. To keep my weight off and keep my fitness – I know it gives me endorphins and makes me feel fantastic – I know I need to do this.'
> Interviewer: 'Beforehand, when you were a bigger lady and you weren't doing much – would this have appealed to you?'
> 'Absolutely not, my life was bringing up my children. So when my children grew up – my youngest one at that point was 18 – I decided to do stuff for myself. I have always taken them to rugby, ballet dancing, fitness, but never thought about myself. So it's time for me now. And now they sometimes come biking with me.' (Female, Dalby Forest GO TRI)

There could be knock-on effects of behaviour change, for example:

> 'I introduced a maths teacher to orienteering and he taught his son who went to Durham University and started an orienteering club.' (Male, Cannock Chase orienteer)

For women in the Bedgebury spin class getting to know the site and its routes via their cycling activity meant they could bring their family to the site.

> F1: 'It would be quite good to come with the family, and now you know this run and that run, there are runs I can take the children down.'
> F2: 'I come with the kids.'
> F3: 'I can take my husband round as I know the routes.' (Females, Bedgebury Real Spin)

At Dalby, a spin instructor organises rides in the forest:

> 'Yeah, the people I am going out biking with now are from the spin class, so we will all be meeting up and going out. So people coming to spin class for a bit of fitness are now buying bikes and getting into riding and doing events and that is

brilliant, it's really great.' (Male, Dalby GO TRI)

One of the volunteers at Sherwood Pines also felt getting involved in parkrun could in some cases lead on to longer events, and another had lost weight:

'…it's often the springboard and people think if I can do that then maybe I can do a bit more or maybe 5km is just enough. It was the springboard for me, I got round in 30 minutes and thought maybe I can get round in 25 and then maybe I can do a 10km, and then Alice entered me into a half marathon without me knowing about it. My story is replicated so many times throughout the country.' (Male volunteer, Sherwood Pines parkrun)
Interviewer: 'You said you lost a lot of weight?'
'Yes, stones and getting used to the Pines [Sherwood] has given me confidence so I cycle now as well as run. I did the red route by accident the wrong way round. We are coming tomorrow for the bike social ride.' (Female volunteer, Sherwood Pines parkrun)

## 5.7. Volunteering

Volunteers were interviewed at Dalby, Cannock Chase and Sherwood Pines. The four volunteers (two couples) at Dalby were marshalling the GO TRI event and they also volunteered for parkrun, where they tended to run the route with the other volunteers after the event. They got to know each other through their volunteering activities. They enjoyed the parkrun at Dalby:

'This is my favourite parkrun, I have done 24 round the country.'
Interviewer: 'What other spaces do you do parkrun in?'
'The one we did yesterday was a sports pitch at a leisure centre, three times round a field.' (Female volunteer, Dalby)

They had also volunteered at a Dalby Halloween event where they had all dressed up together:

'Don was a clown, Kate was the white lady, Lynn was a witch and Peter was a zombie.' (Male volunteer, Dalby)

One of them also volunteered for the Christmas tree sales at Dalby and for data gathering for the AF programme.

The Cannock Chase volunteers outlined that most people in the club volunteered at some point. There were a variety of roles within the club such as president, press officer, permissions officer who gets agreement to set up and run events with landowners, route/map developer, someone to set out the courses with controls and an IT volunteer.

'The club is totally volunteers. The age profile is getting older – we have a really good junior section but we lose some as teenagers and going off to university and

there are lots over 40 or 45. The club is about 120 [people] but you find that you have a hard core of 30–40 that go to events and set up. Some people have been in the club for 20–30 years.' (Male volunteer, Cannock Chase)

There is an increasing focus on urban orienteering and that is seen as an opportunity to reach out to new audiences.

The four volunteers at Sherwood Pines were organising the parkrun every Saturday. This involved them receiving training from parkrun and then training other volunteers, organising and marshalling the event, ensuring under-11s are accompanied on the run by an adult, scanning the participants' bar codes at the end of the race and uploading results to the parkrun website. They also train all the other volunteers to clap and support all runners round the course and at the end of the run.

The volunteers are proud of their parkrun but also need to deal with challenges as outlined by the following:

'I think when the AFC approached parkrun to set the run up, there was a hope that it would become a destination parkrun because you have various destination parkruns round the country and people will come and do the run then spend the rest of the day hanging about, and I think we will become one of those which is a great flagship. We have nothing but good feedback from the course, and the only issue we have is how to manage the CaniX [people running with a harness attached to their dogs who run with them], and on a weekly basis we are working with that community to make sure they are not putting people off and are not getting in the way.' (Female volunteer, Sherwood Pines)

The volunteers have devised a strategy, after receiving a small number of complaints. They get the CaniX participants to stand at the start line and a volunteer is allocated to them. The rest of the parkrun participants stand further back where the briefing is given and the CaniX runners set off first.

The motivations for volunteering were often given as putting something back:

'It's just something nice to do; it's nice to give back that's why I like to do it.'
Interviewer: 'Give back to the forest or people?'
'To the people more than anything. It's lovely surroundings as well so it's nice to spend time in the forest.' (Male volunteer, Dalby)

'You try and explain to people how it works and they just think you're mental. You get up at 7.30 on Saturday and give up most of your morning, but it's part of my life and it's changed people's lives. As long as we do our job right people will come back week after week and it's fantastic to see.' (Female volunteer, Sherwood Pines)

There were also a range of benefits gained by the volunteers including the pleasure they gained from their activities, with the parkrun volunteers having a strong sense that 'we are a run not a race'.

> F1: 'We are very family-orientated and we are very keen to get as many involved as want to be… We hope in time the run will become more self-sufficient and we are training up a couple of new run directors to take some of the pressure off us each week and over time we should be able to step away. But in terms of giving it up…'
> F2: 'No!'
> M: 'It's four or five hours out of your Saturday morning – it's fantastic: why would you want to give it up?'
> F2: 'It's part of our lives. I didn't do anything before I took up running a couple of years ago. I was a couch potato and 3.5 stone heavier. I was looking at my kids – my oldest is active and my partner is active – but I was like... it was really the running club that got me involved and then getting into parkrun.' (Female and male volunteers Sherwood Pines)

The feedback, appreciation from and interaction with participants were also benefits to the volunteers:

> 'People come and thank us for coming out on a day like this [snowing]; this appreciation works both ways. When I first volunteered by doing the concerts [music] at Dalby I was just litter-picking, but the banter you can have with members of the public is brilliant.' (Male volunteer, Dalby)

The volunteers at Sherwood Pines and Dalby had a direct relationship with FCE. One of the volunteers at Dalby outlined that they were treated as part of the team:

> 'The FCE staff come round and offer you a cup of tea; you're included as though you are part of the team. It's not like "you're a volunteer we want nothing to do with you". They take you in and you have a laugh. They don't sit in a corner chatting to themselves, they involve you and ask if you're all right.' (Male volunteer, Dalby)

While at Sherwood Pines, the volunteers acknowledged the efforts of FCE staff:

> 'FCE guys put so much effort into this as well. It's been a journey and we are at week 17 now and are just shy of 200 people a week, which is amazing. Sometimes it's good to stop and reflect as 200 a week is a lot of people.' (Female volunteer, Sherwood Pines)

## 5.8. Third-party providers

Three third-party providers were interviewed at Dalby, Delamere and Bedgebury. At Dalby, a North Yorkshire Sport (NYS) employee works part-time (with the FCE AFC) on the AF programme and outlined that the focus is to 'try and get as many sports and

National Governing Bodies (NGB) into Dalby and increase sports participation in the forest'. The NYS officer outlined:

> 'Yes, we both coordinate and P has all the forestry contacts and I have sports contacts in NGBs, so rather than get a volunteer to run a session we can get a qualified coach to do it. That is how the partnership works.'

The AFC and NYS officer are reaching out to schools to encourage them to attend sports days. The GO TRI event was started and aimed at beginners with the idea that if people wanted to do more triathlons or join a club they could be signposted by the coordinators. Other testing of approaches included:

> 'Triathlon England did a pilot of novice female training which we piloted up here at Dalby. There was a lot of interest and as people came and did a six-week training course they got to learn how to cycle, run and do the transfer, so that got a lot of interest and it was great that it was piloted at Dalby. That was women only. We linked it in with the GO TRI event, but we have a women-only wave and we set them off two minutes after everyone else.' (NYS officer, Dalby)

Parkrun has been started on site and Nordic walking. The GO TRI event is not about running for a specific time as the ethos is that it is not a competitive event, it is for all abilities. NYS organise a cross-country course and brought that to Dalby in 2016.

The Nordic walking instructor at Delamere went to a Nordic walking (NW) taster session in 2006 and when NW UK came into being in 2009/10 and were offering classes she decided to train as an instructor. She then looked at different locations to set up and thought Delamere Forest was ideal. Permission then needed to be sought from FCE. She was not sure who or how to approach FCE but eventually made contact and filled in a form that she felt was quite easy and FCE agreed to give a permit for NW on site. With the AFC coming into post, that made connection and contact with FCE much easier. The instructor hoped to attract any age but finds her clients are mainly middle or older age and predominately women. Participants are recruited via posters in local free papers, via Facebook and word of mouth.

> 'I see myself doing this for ever – it's lovely and the people you meet are lovely and the instructors are lovely. We've just had a conference and met people globally. It's about NW and new techniques and gives you ideas.' (NW instructor, Delamere)

Quench is a business and has been on site at Bedgebury for eight years. It aims to engage people in the outdoors by hiring bicycles for adventure and educational challenges. They assist people in developing skills, more efficient riding and in the hiring and maintenance of bicycles. The site and its location were seen as important in terms of attracting people and as a place to work:

'We have the best office in the world, it's very inspiring.' (Quench, Bedgebury)

## 5.9. Active Forest Coordinators

Discussions were held with four of the five AFCs in 2016/17. Therefore the AF programme was still running and all the activities that took place in the pilot were not necessarily yet up and running. The quantitative data on activities and patterns gives an idea of the variety of activities that have been run and set up on the five sites and Section 3 outlines the site objectives. Gathering data for M&E could be a challenge, particularly capturing the informal activities such as table tennis and volleyball. Parkrun was seen as providing useful accessible data as everyone who signs up to parkrun receives a bar code which is then used to record the time they take to run a 5km parkrun. Age and gender are also captured and sites can easily look at the parkrun website to see the total number of participants they get a week. AFCs, when helping to run activities or capturing data via the iPads, also gained valuable feedback from participants, but this was not captured via the simple participant survey and was difficult to remember and pass on to others.

Challenges identified by the AFCs included avoiding too many large events in the summer as this is the time when all the sites are very busy and sometimes are at capacity. Devising new routes on site, for example running, could be a challenge to fit in with existing well-used and liked routes. Another challenge could be promoting events and activities through social media and keeping up with that as constant updates need to be made to engage people. Word of mouth and face-to-face contact was seen as really important in getting messages across to people and developing relationships with third-party providers. Fitting in with the other FCE staff and ensuring that discussions are had with operational staff before new routes and activities are set up were also important.

Testing out different approaches and learning from what worked and what did not were seen as very important, and the fact that the AF programme was a pilot and enabled this testing and learning, allowed AFCs to try different approaches and activities.

## 5.10. National Governing Bodies

Interviews were undertaken with representatives from two sport National Governing Bodies – England Athletics (EA) and British Orienteering (BO), and also with parkrun (PR) in mid-2016, i.e. part-way through the programme.

For EA the relationship with FCE came about via Sport England, and it viewed running as well suited to the sites that FCE manages. PR primarily has a relationship with FCE at a local level rather than at the national level. BO has had an agreement and relationship with FCE for a number of years and this works well for orienteering clubs. Some of the forest sites present logistical challenges and these were identified by EA and PR and include remote locations, how people travel to the site, sometimes narrow paths, tree routes and low hanging branches. However, the organisations recognise that these are

often seen as important reasons why people want to carry out their activity at a forest site. These challenges are seen as especially important for BO. The nature of orienteering means that participants are often sporadic users of a specific forest site as using the same site regularly means it becomes known and is less of a navigation challenge. But the forest environment is very appealing to orienteering participants and high-level events take place in forests across the world. Mountain biking is sometimes a concern for orienteers, particularly when trails cross, and there can be restrictions on using areas of the forests due to logging; conservation considerations also pose a challenge for orienteering routes.

### 5.10.1. Monitoring, evaluation and use of data

- Use of data was seen as important for all of the three organisations in understanding audiences. Work on segmentation of types of people has been undertaken by EA on those carrying out sporting or physical activity. 'Active escapists' are a key segment that would fit into the FCE sites. Consideration is being given to the journey of physical activity over the life course by EA. PR provides data to parkrun participants as a motivation to get them to run regularly, providing feedback on personal best times. BO captures data on numbers; it used the Active People survey (run by Sport England) to understand more about those orienteering.
- EA outlined that there is always a challenge of demonstrating impact via collecting numbers of people running on routes. For PR the registration process and simple idea of a run at a set time every week mean the organisation knows how many events, how many people, gender, age, and time taken to run the course. PR and EA do not have much data on outcomes, in terms of benefits to people.
- The focus for EA is on those undertaking irregular activity (one to five times a year) or infrequent activity rather than the totally inactive. There is a particular focus on women (the recent growth in running has been from women aged 35–55), the over-55s and those of lower socio-economic status, with the aim of transforming people's lives. For PR there is also a focus on the less active and irregular runners who sign up but run once or do not run. PR is considering how to provide messages that will encourage these people to become regular participants. For BO two target audiences include young families with children 5–13 and older adults 55 and over .
- Collecting data on the right metrics was seen as very important as well as the way it is collected. EA want to set up a digital platform to track people registered with running groups. At the moment they have the number registered but do not know how many turn up each week. PR, in retrospect, would have liked to get more information at registration, e.g. on ethnicity, disability. It can start to do this but would also aim to get those already registered to update their profiles.

- Apps are seen as important: EA tested bounts on a small scale but think that it works better for active audiences – it takes a while to get rewards with the free version but is quicker with the paid version. PR is linked with Strava but see this as an app for those who are very committed already. Both organisations see a need to consider how to reach the less committed via apps. BO is exploring the digitisation of its recreation routes in order to make them available via an app.
- Also the organisations see a need to instil evidence-based decision-making into the culture of their organisations so that all see the importance of collecting data for insight into key audiences.

### 5.10.2. Volunteering

- All three organisations are very reliant on volunteers to lead groups (EA and BO) or events (PR), and the organisations are trying to better understand the volunteer's experience. For EA, getting more of the people who do its 'one day' training to set up a running group is important to reduce churn and retain run leaders. The challenge is that many people are interested in one-off volunteering more than the long-term commitment of a running club. PR has a more flexible system for volunteers and these often have good relationships with running clubs. PR sees some of the hurdles that volunteers have to overcome in setting up a parkrun as important in creating team cohesion. Recognition for BO volunteers is different for each club – most people who participate in orienteering tend to volunteer at some point.
- All the organisations consider reward and recognition of volunteers; none are currently capturing data on how much volunteer time is given to each organisation. For PR, any volunteer who has volunteered more than 25 times gets a T-shirt. Parkrun ambassadors get invited to an annual conference which is part training and part recognition. BO holds a national award for volunteers.
- There is a realisation that it is difficult to reach a diversity (e.g. ethnicity, lower socio-economic status) of people and encourage them to become volunteers.

### 5.10.3. Developing the organisational approach/offer

- PR has started a Junior 2km run on Sundays, and these events are growing at a faster rate than the adult 5km runs did. Also it is trialling a run at nine schools in London. PR will be able to provide the schools with metrics to show trends over a period of time. It also wants to extend its geographical range into new countries and develop a more sophisticated funding policy. EA wants to focus on communicating with audiences and to look at products in recreational running for running groups. It is also considering a move to digital approaches to establishing routes, with each run leader having their own digital pages to show to existing and new members. Urban orienteering has become increasingly popular according

to BO, arising out of foot-and-mouth disease and restricted access to the countryside; this temporary approach has become a key feature of orienteering.

- The parkrun event at Little Stoke was stopped by PR when the Local Authority wanted to charge for the parkrun event which is against the organisation's principles. However, other sites have wanted to charge and this is an issue with cuts in funding Local Authorities have been faced with in recent years and the impact on managing green spaces.
- All of the organisations see social media and websites as key means of communicating with existing and new audiences, with organisational pages feeding down to club- or event-level webpages.

# 6. Limitations of the M&E approach

There are a number of limitations to the monitoring and evaluation undertaken for this programme. For example, because the throughput data gathered total number of sporting visits rather than total numbers of individual people (i.e. for each activity the number of people participating was recorded, but if people repeated the activity each week, for example by doing parkrun, then adding these numbers together gives a total number of sporting visits rather than total number of individual people), it was not possible to scale up the numbers from the participant and follow-on survey data. For example 85% in the participant survey were motivated to be physically active in nature. This is not 85% of the 700k throughput sporting visits, as this could be 350k people visiting twice or 233k visiting three times, etc. This is a key issue for environment-sector organisations that encourage and enable outdoor activities. Figure 21 shows that mountain biking and walking were over-represented in the two surveys compared to the throughput data on activities undertaken.

The monitoring and evaluation highlight changes in trends of activities over time. Some of this change is not necessarily due to a reduction in popularity of a specific activity or a reduction in the amount of activity being undertaken, but could be due to:

- A lack of capacity to collect monitoring and evaluation data. For example, when an AFC was on sick leave, when an AFC left, when the contracts of some of the coordinators came to an end in quarter three, year three of the programme.

Showing attribution to the AF programme was a challenge. Change between the participant survey and follow-on survey in terms of increased frequency of visits to the woods could be attributed to the programme and people's enjoyment of their activities. Changes in levels of sporting activity between the surveys was statistically significant for those who were less active, but we cannot say for certain that the increase in activity was directly due to the AF programme. In some cases it will have been, and in other cases the programme may have contributed to increased physical activity or respondents may have done something else, such as join a gym. The qualitative research reveals that

people are often undertaking a variety of physical activities in a range of places, not only in forests, as part of an active lifestyle.

The participant survey result outlining that 83% said they were new to the activity appears to be high and there is potential that although the question asked participants if they had ever undertaken this activity in any location, it may be that some participants misinterpreted the question and meant they had never undertaken the activity in that particular forest before.

We had a very small sample of those stating they were new to an Active Forest site; this was because this question was only added to the participant survey in April 2016 and the small sample in the follow-on survey means the figures are not robust enough to draw any conclusions.

The participant and follow-on surveys were not really capturing the 'play on the day' activities such as table tennis, volleyball, etc. and these people might have identified different motivations and benefits from the current sample or been different in terms of demographics.

We do not know if participants are spending more time on site due to the AF programme as this was not a question covered in the data gathering.

# 7. Key lessons from the M&E approach

## 7.1. Embedding M&E into the AF programme

The AF programme ensured that data gathering was a core part of the overall programme. This included:

- embedding M&E into the programme from the beginning;
- using 2014/15 as a baseline of activity before the AFCs were recruited and in place;
- having Cannock Chase as a comparison site with no AFC;
- an innovation of the programme was to make M&E data gathering a core part of the AFC role.

This M&E approach was critical and allows FCE and SE to be able to better understand how the programme worked and to tell the story of the outputs and outcomes of the programme.

## 7.2. Approach and targets

Time was allowed for at the beginning of the programme to set up and check the M&E approach, which took a considerable amount of time. The partnership working between FCE and SE, in relation to M&E, engendered a willingness to discuss methods, change the approach, trial new approaches, and learn and adapt. For example:

- The iPad trial at Bedgebury proved successful and this led to each site using an iPad, which allowed them to target specific groups and add to the overall numbers of people completing the participant survey online.
- Further questions were added to the participant and follow-on survey to assess change between the two surveys, e.g. adding frequency of forest visits, and whether someone had visited the forest previously or were new to the site.
- The questions on whether the activity was a new one for people was changed to state 'was this a new activity in any location' to try and ensure that people did not answer that they had never done the activity before at that particular forest site.
- Changes in the targets were made from focusing on a number, e.g. moving from the target of reaching 120,000 new to regular sport and 24,000 new to sport, to focusing on moving about 5–10% to regular sport. This change was made due to the throughput data identifying sporting visits rather than individual people.

## 7.3. Promotion and incentives

Incentives were provided to encourage people to complete the participant survey. A key lesson to learn from the pilot is to ensure that any prize draws are up to date and deadlines for prize draws have not overrun. For example, the prize draw date given in the survey ran out in 2016, AFCs stopped using the iPad to collect data or promote the survey online until a new prize was put in place and this took a while. The drop in data gathering is clearly shown in Figure 8 for quarter two in 2016/17 and the numbers of participant surveys completed did not recover to former levels before the end of the pilot programme. This can be easily rectified in the next phase of the programme by ensuring the prize draw dates are identified and putting in place new dates after each prize has been drawn. In Phase II of the programme a prize draw will also be used to incentivise the completion of the follow-on survey.

Through the trail of social media at Sherwood Pines it was clear that promoting the participant survey through approaches such as Facebook added to the numbers completing the survey online. Keeping up a social media presence and promoting the participant survey continuously will be important to maintain and potentially increase for the AFCs in the next phase of the programme.

The follow-on survey was emailed only once to people three months after completion of the participant survey. Unfortunately, no reminder email was sent. A good practice approach in surveys sent by post or email is to send one or two reminders as people may have missed the first email or post. This approach will be undertaken in the next phase of the programme to try and increase response rates, along with the provision of an incentive.

## 7.4. Sampling and volunteer assistance

Those who filled in the participant survey online as well as those who completed the follow-on survey were self-selecting. However, the use of the iPad on site for the participant survey allowed AFCs to target particular groups of people or activities. The AFCs were asked to try and ensure they did not only use the iPad at large events where it was potentially easier to capture larger numbers of people to fill in the survey.

Cameras and observations were used to record numbers involved in non-traditional forest activities such as table tennis, volleyball and football. These were trialled as part of the programme and presented some challenges. AFCs were advised to capture a sample of data on weekdays, weekends and holidays to try and ensure numbers were realistic for the times of day and days of week before the numbers were scaled up. The figures may not be as robust as would be required ideally, but this was the best approach available to take at the time.

Volunteers were able to support AFCs at some sites not only in running and organising or supporting events but also in gathering data. There may be more potential in Phase II of the programme to work more closely with volunteers and enable them to support data gathering.

# 8. Recommendations for further research

The following bulleted list provides some recommendations for further research, some of which are being taken on board as part of the Phase II evaluation of the Active Forest programme.

- Lessons learnt from the evaluation of the pilot programme are being taken on board. Demographic questions will be added to the participant survey (rather than the follow-on survey as occurred in the pilot) to ensure that a larger sample with demographic data is obtained. This is particularly important as a third of people came with at least one child and the qualitative research highlighted the importance of the activities on offer for women and their families.
- Tracking change between the two surveys is important to explore whether activity levels have increased for the most and least active and whether there have been changes in forest visit frequency or in the types of activity undertaken. Using a recognised measure of physical activity is important; the International Physical Activity Questionnaire (IPAQ) is a detailed measure of physical activity but if used would add to the length of both surveys. However, it could consider if a more accurate account of physical activity is needed. At present participants, in both surveys, will be asked what is the total amount of moderate to vigorous physical activity that they have undertaken in the last seven days.

- Showing attribution to the Active Forest programme between the first and follow-on survey is difficult. A new question has been added to the follow-on survey to test this issue; further work may be needed in the future to explore this in greater detail.
- Further research should consider how to track people over a longer time period and would be particularly useful to explore whether any change lasts. However, drop-off rates for these types of approaches are often high and the resources to follow individuals can be prohibitive.
- The use of validated health questionnaires could be considered such as the SF12 health survey, the IPAQ mentioned earlier, the Warwick Edinburgh Mental Wellbeing Scale (WEMWBS), or EuroQol, a standardised measure to identify health outcomes. These types of approaches should be considered if more of a health focus is required.
- Exploring cost-effectiveness or the Social Return on Investment of the Active Forest programme would enable a better understanding of the long-term cost-effectiveness of the programme.
- The qualitative research revealed that for those who were already active, they were often undertaking a variety of physical activities only some of which were in the forest environment. This illustrates a complex picture: it is clear that the Active Forest programme could make a contribution to people's activity levels but people could also change what they were doing at different key life stages. Capturing this in the evaluation in detail is not straightforward. Tracking participants in the longer term via an ongoing survey and/or qualitative physical activity life histories would provide a better idea of their journeys in relation to physical exercise over a period of time.
- Qualitative research to understand some of the barriers to being active in forests is needed. It is especially hard to reach these groups and research would be needed in local communities surrounding a sample of the Active Forest sites.

# 9. Conclusions

The AF programme after being piloted for three years is now moving to Phase II in which the programme's aim is to include a further 15 sites, taking the total to 20 sites. Phase II will run for five years, and the focus will be on physical activity, including walking, rather than sport and physical activity which was the focus in the pilot programme.

Lessons learnt from the pilot are being introduced into the next phase of the programme. The importance of embedding monitoring and evaluation into the programme from the beginning has been key to identifying the outputs and outcomes of

the programme. It has played an important role in providing the evidence on which the decision to run Phase II and mainstream the programme across more sites in England could be made.

It is clear that the AF programme has provided a range of wellbeing benefits to a large number of people who enjoyed having the opportunity to exercise outdoors in attractive forest environments. The programme enabled them to sustain activities, try new activities and undertake activities more often, as well as involve family members and friends.

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# Appendix 1. Questionnaires

## Participant survey questionnaire administer via iPad on site or via webpage

Q1 Which forest was your activity held in?

- Bedgebury pinetum
- Birches valley –cannock chase
- Dably forest
- Delamere forest
- High lodge thetford
- Jeskyns community woodland
- Sherwood Pines
- Thames chase forest centre

Q2 On average how often do you come to this forest?
Everyday

- 4-6 times a week
- 1-3 times a week
- 1-3 times a month
- 4-6 times year
- 1-3 times a year
- Less than 1-2 times per year
- I have never visited this forest before

Q3 What activity did you take part in?

- Archery
- Badminton
- Cycling
- Duathlon
- Equestrian
- Fitness
- Football
- Mountain biking
- Orienteering
- Rounders
- Tai chi
- Table tennis
- Triathlon
- Volleybal
- Walking
- Other

Q4 Have you ever done this activity before in any location?

Q5 When do the activity take place?
MM/DD/YYY

Q6 How old are you?

- 16-25

- 26-34
- 35-44
- 45-55
- 56-64
- 65+

Q7 Did anyone under the age of 16 take part with you?
- Yes
- No

Q8 If yes please indicate how many in the respective age boxes below
- Below 14 years
- 14-15 years

Q9 How did you find out about the activity?
- From friend
- Leaflet
- Newspaper
- Poster
- Radio
- Social media
- TV
- Website
- Other (please specify)

Q10 What other activities would you like to take part in?
- Archery
- Badminton
- Cycling
- Duathlon
- Equestrian
- Fitness
- Football
- Mountain biking
- Orienteering
- Rounders
- Tai chi
- Table tennis
- Triathlon
- Volleyball
- Walking
- Nordic walking
- Other (please specify)

Q11 Over the last 6 months how often have you taken part in any sports activity?
- Not in the last 6 months
- Less than once a month
- At least once a month
- At least once a week
- More than once a week.

## Follow on survey questionnaire online

**Introduction to survey**
Welcome to the 'follow up' survey for the Sports Programme being delivered by the Forestry Commission. You completed a short participant survey for us when you first got involved by doing (name of activity) at (name of site) on (date on which activity was ). We want to understand a bit more about your experience of your sporting and physical activities since then. Some of the questions in this new survey are related to the activity that you told us about in the first short survey. Your answers will help us improve sport and recreation services on our forest sites and contribute to on-going research on the public benefits of woodlands.

It will take approximately 10 minutes to fill in this survey.

Thank you very much for your help.

**Questions**
Q1: Have you participated in any other sporting or physical activities in **any woodlands** since you filled in the previous short Forestry Commission survey? (tick all that apply)

- Running
- Cycling
- Mountain biking
- Equestrian
- Table tennis
- Volleyball
- Fitness
- Rounders
- Badminton
- Cricket
- Football
- Tennis
- Tai Chi
- Orienteering
- Triathlon
- Duathlon
- Archery
- Walking
- Other (please state)
- Not participated

Q2: How often have you been doing these activities **in woodlands?** (tick one)

- Have not done any
- Less than once a month
- At least once a month
- At least once a week
- More than once a week

Q3 How often have you been back to the woodland you identified in the previous short Forestry Commission survey?

- Everyday
- 4-6 times a week
- 1-3 times a week
- 1-3 times a month

- 4-6 times a year
- 1-3 times a year
- Less often
- I have not been back to the site

Q4: What motivates you to undertake sport and physical activity in woodlands? (tick all that apply)

- I want to get fit
- I want to do something physically active outdoors in nature
- I want to learn new skills
- I want to spend time with friends and family
- I want to enjoy myself
- I want to do something different
- I want to improve my health
- Other please state

Q5 Over the last 6 months how often have you taken **part in any sports activity**? This could be as an individual or as part of a group, in any location (i.e. **does not have to be in a forest**)

- Not in the last 6 months
- Less than once a month
- At least once a month
- At least once a week
- More than once a week

Q6: How important are the following qualities for your **woodland** sports and physical activity experience (please put one tick in each row)

| | Very important | Quite important | Neither important nor unimportant | Not important | Not at all important |
|---|---|---|---|---|---|
| The sports and physical activity are well organised and led | | | | | |
| Good quality equipment to undertake a sport or physical activity | | | | | |
| The type of sport and physical activity should be fun and enjoyable | | | | | |
| Sports and physical activities are held on a regular basis | | | | | |
| The sports and physical activity is for all the family | | | | | |
| Meeting and spending time with other people | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Opportunity to try a new sport or physical activity | | | | | |
| Enough car parking | | | | | |
| Clear signposting on footpaths | | | | | |
| A café | | | | | |
| Clean toilets | | | | | |
| Children's play equipment | | | | | |
| Leaflets and information about the place you are visiting. | | | | | |
| Good choice of paths for sport and physical activity (walking, cycling, horseriding) | | | | | |
| Availability of staff at the site (for example rangers) | | | | | |

Q7: Have you gained any of the following benefits from undertaking sport or physical activity in a woodland? (tick all that apply)

- Physical wellbeing benefits
- Mental wellbeing benefits
- A feeling of escape and freedom
- A sense of enjoyment and fun
- Sensory stimulation (e.g. sight, sound, touch, smells)
- Feeling close to nature
- Shelter from the trees for sun or bad weather
- Screening by the trees from other people/groups
- Learned something new about my sporting and physical activity
- Learned something new about the woodland
- Enjoyed my activity with family and / or friends
- Enjoyed meeting new people
- Participation in an organised sporting activity
- Enjoyed being able to purchase refreshments in the forest
- Enjoyed being able to hire equipment I needed for my sport or physical activity (e.g. bicycle)
- Feel I have contributed to the local economy (e.g. by paying car park fee, paying to join a sports session)
- Any other benefits (please specify)

Q8: In your experience are there any particular challenges or barriers from carrying out sport or physical activity in a woodland? (tick all that apply)

- Poor Weather
- Uneven terrain
- Possibility of getting lost
- Not enough open space

- Forest work activity i.e. tree felling restricting access to parts of the forest
- Lack of facilities (e.g. toilets, refreshments)
- Cost of visiting
- Woodland is poorly maintained
- Lack of appropriate information
- I do not feel safe in the woods alone
- Not the equipment I need
- Too far away from where I live
- Lack of transport to access a site
- Other (please state) ……..

Q9: What would encourage you to undertake more sport and physical activity in woodland?
Open question

Q10. Have you made a visit to any greenspace (including woodlands, parks, countryside etc.) in the last 7 days specifically for health or exercise?
Yes
No

Q11 Do you have a long-standing illness, disability or infirmity? By longstanding I mean anything that has troubled you over a long period of time or that is likely to affect you over a period of time.
Yes
No

IF YES
Q12 Does this illness or disability limit your activities in any way?
Yes
No

**Demographics**

**Finally, please answer the following questions about yourself. These details will only be used for analysis purposes and will not be passed on:**

**Sex:** Male O Female O

**Age:** 16-24 O 25-34 O 35-44 O
45-54 O 55-64 O 65+ O

**What is your total household income (income from all sources before tax and other deductions)**

1. Up to £10,399
2. £10,400 to £20,799
3. £20,800 to £31,199
4. £31,200 to £41,599
5. £41,600 to £51,999
6. £52,000 or more

7. Don't know

**Are you?**

| | |
|---|---|
| Parent or carer | ☐ |
| In full time education | ☐ |
| Unemployed | ☐ |
| Unable to work because of illness/disability | ☐ |
| Self employed | ☐ |
| Other (specify) | ☐ |

**Which of these ethnic groups do you consider you belong to?** ***(Please tick one box only)***

**White**
White – British
White - Irish
White – Other White Background – please specify

**Mixed race**
Mixed – White and Black Caribbean
Mixed – White and Black African
Mixed – White and Asian
Mixed – Any Other Mixed Background – please specify

**Asian or Asian British**
Asian or Asian British – Indian
Asian or Asian British – Pakistani
Asian or Asian British – Bangladeshi
Asian or Asian British – Other Asian Background – please specify
Chinese or other ethnic group

**Black or Black British**
Black or Black British – Caribbean
Black or Black British – African
Black or Black British – Other Black Background

## Focus group / interview questions delivered on site

**Topic Guide for Focus Groups with User Groups**

**Introduction:**
As part of the qualitative research phase of FR's evaluation of the Active Forest programme, focus groups will be undertaken with user groups. With these user groups, formal discussions will be preceded where possible by a shared activity such as walking or cycling, play on the day.
To prompt focused discussions of respondents' experiences of the AF programme activities in order to explore motivations, benefits (health and other), and possible improvements to programme design and implementation. This will provide an evidence base that will be used as part of the overall evaluation of the programme.

**Getting involved in sport and physical activity**

- When did you first got involved in sport and physical activity [prompt: what age. What activities]
- What motivated you to get involved in sport and physical activity [prompt: fitness, health, enjoyment,]
- How you got it involved [on your own, at school, joining an organised activity, going to an event, joining a club]
- How regularly do you undertake physical activity [everyday, every week, month]
- Do you consider yourself to be a sport and exercise type of person [prompt: do you view [insert name of sport] as a sport
- Do you think you are meeting the recommendation of 150 mins of a mix of moderate and vigorous activity per week? [could be active travel, gardening as well as leisure activity]

**Getting involved in physical activity in woods**

- When did you first get involved in S&PA in a woodland environment (Prompt: what type of activities do you do in woodlands)
- What motivated you to do this
- How regularly do you do this in a forest environment?
- Do you do this and / or other S+PA in other outdoor places (non woodland i.e. parks, country parks, countryside etc)?

**Experience of sport and exercise in the forest**

- What is your experience of undertaking S&PA in a woodland?
- What are the benefits – are they different from doing sport in other locations – sports centres/gyms/sports fields? [prompt: fresh air, sensory stimulation, views, challenge]
- What are the challenges [prompt: weather, facilities, getting to woodland, uneven terrain, getting to location, cost of parking and events]

- Is there anything that would make it easier for you to do S&PA in a woodland [prompt: facilities, organised activities, infrastructure improvement i.e. better trails]

**Behaviours (sustaining and changes)**

- Has participating in this sport and physical activity in this woodland led to any changes in your behaviour? [prompt: doing a new activity, sustaining behaviour in long term, changing behaviour – doing more or different types of activity, doing more exercise overall, other such as encouraging a friend to join you].

- Has getting involved in this S+PA in this forest led you to visit it more often [prompt: how often – once a week more, once a month more etc.]

- How important is it for you to join an organised exercise activity in woodland that is led by someone [prompt: if it is important why is that the case, would you still do it if you were on your own]

**Social connections**

- How important to you is undertaking sport and physical activity in woodlands with others whether family, friends etc.
- Have you met new people through this activity, does this motivate you to attend or do you do activity with friends / family?
- Why is the social side important, would you do the activity alone?

**Experience of the physical environment**

- What is the importance or not of different aspects of woodlands – visual (what you see), sound (what you hear), smell (what you smell), texture (textures you see or feel by hand or underfoot) to your experience and any impact on your health and wellbeing.

- Is there anything specifically enables you to use this wood and others – it's nearby, organised activities, having dog to walk, going with someone else/company, familiarity with site, meeting new people, personal motivation

Anything else you would like to say in relation to S&PA in woodlands

**Thank everyone and close**

# Appendix 2. Short review of six of the Active Forest sites

**Liz O'Brien 2014**

This review briefly outlines the use of six[14] of the Active Forest sites in recent years, the types of activities being undertaken, who is using the sites and the key benefits people gain from their activities. These surveys were undertaken within the last three years and therefore provide a picture of the types of visitors and activities taking place before the Active Forests programme with Sport England was launched. Cannock started as an AF site but acted as a comparison site when the AFC left after a short period in 2015.

## Bedgebury Forest

Quality of experience surveys were undertaken by contractors at Bedgebury in 2008 and 2011 (BMG, 2012a). In 2011 260 people were included in the survey. Bedgebury also gained funding as part of the Active England lottery funded programme which ran from 2005-2009 (O'Brien and Morris, 2009; Morris and O'Brien, 2011).

### Key results from the Quality of experience survey 2011

#### Type of visits

85% of respondents were visiting as part of a day trip of less than three hours from home, 11% were part of a day trip of more than three hours from home and only 3% visited as part of an overnight trip. 76% had been to Bedgebury previously. Excluding first time visitors 15% visited Bedgebury weekly, 29% made 1-3 visits per month and 18% visited 4-6 times per year. The average time spent on site was 2 hours and 58 minutes.

#### Demographics of visitors

53% were men and 47% were women. 69% of visitors were under 45 years of age and 30% were over 45 years and over. 4% of visitors were 16-24 years of age. 66% of visitors were families (i.e. had children in the household), and 66% were employed full-time. Only 1% of visitors had a disability.

The mean number of people in a group visiting Bedgebury was four people, with families more likely to visit in a group. 65% of visitors were visiting with children in their group.

[14] Note that one site Cannock lost its Active Forest Coordinator and became a comparison site.

## Activities undertaken

In terms of sports activity, 60% were undertaking cycling and only 1% were running and 1% orienteering, cycling was more likely to be undertaken by men than women. In terms of other popular activities, 44% were walking, 39% used the café and 38% the play area.

## Benefits of visiting

People were asked an open question about what they most liked most about Bedgebury and the top four favourite aspects were:

1. Beautiful scenery and views (47%)
2. Peace, tranquillity and relaxation (45%)
3. Cycle trails, freedom and opportunity to cycle (45%)
4. Activities good for, something to do with children (30%)

## Customer profile of Bedgebury Discovery Pass[15] Visitors

88% of discovery pass visitors originate in their visit from the south east of England, with 7% coming from London and 3% from the east of England.

The top three customer types to Bedgebury are outlined below. Overall the discover pass holders tend to be well off or comfortable and well established living in pleasant environments (Experien, 2011a).

**Mosaic category: Squires amongst locals (Mosaic type: Rural Solitude)**

These are well off individuals, who live in pleasant villages, scattered settlements and exclusive homes. They are often commuters, buy items in bulk and are reliant on cars.

**Mosaic category: Garden suburbia (Mosaic type: Suburban mindsets)**

These are middle aged families who are well established in their community, they buy products on the basis of quality are dependent on their cars. They live in semi-detached suburbia, have adult children still at home, are comfortable internet users and have moderate views.

**Mosaic category: Escape to the country (Mosaic type: Professional rewards)**

Comprised of comfortable families in thriving rural villages, are often daily commuters, are professionals and managers with good qualifications and are good decision makers. Have a sense of community and want good places for their children.

[15] The Discovery Pass provides visitors with a years free parking at their local forest, a seasonal e-newsletter and a number of discounts e.g. on Forest Holiday.

# Thetford High Lodge

Quality of experience surveys were undertaken by contractors at Thetford in 2008 and 2011. In 2011 260 people were included in the survey (BMG, 2012b).

## Key results from the Quality of experience survey 2011

### Type of visits

78% of respondents were visiting as part of a day trip of less than three hours from home, 18% were on a day trip of more than three hours from home and 3% visited as part of an overnight trip.

68% had been to Thetford previously. Excluding first time visitors 11% visited Thetford weekly, 19% visited monthly and 59% visited yearly. The average time spent on site was 2 hours and 53 minutes.

### Demographics of visitors

51% of visitors were male and 49% female. 72% were under 45 years of age and 27% were aged 45 or over. 10% were aged 16-24 years. 3% of visitors had a disability. 60% of visitors were families (had children in household) while 63% of respondents had children in their group when they were surveyed.

The mean number of people visiting in a group was 5 people.

### Activities undertaken

In terms of sports activity, 38% were undertaking cycling and only 1% were running and 1% orienteering, and 2% horseriding. In terms of other popular activities, 44% were walking, 35% used the play area and 25%% the cafe. In all 66% took part in 'active' activities and 27% in 'passive' activities[16].

### Benefits of visiting

People were asked an open question about what they most liked most about Thetford and the top four favourite aspects were:

1. Peace, tranquillity and relaxation (45%)
2. Beautiful scenery and views (39%)
3. Activities good for, something to do with children (38%)
4. Cycle trails, freedom and opportunity to cycle (25%)

[16] A definition of 'active' and 'passive' activities is not given in the report.

## Customer profile of Thetford Discovery Pass[17] Visitors

9 our of 10 discovery pass visitors live within an hours drive of the site, with 94% living within 50 miles of Thetford.

The top three customer types to Thetford are outlined below (Experien, 2011b).

**Mosaic category: Jack of all trades (Mosaic type: Small town diversity)**

This group are older owner occupiers in comfortable spacious homes. They are typically responsible skilled manual workers many of which are self employed. They have extensive social networks and there is little population movement.

**Mosaic category: Childcare years (Mosaic type: Careers and kids)**

Comprised of well qualified professionals with two incomes, living in private housing with young children and have active lifestyles.

**Mosaic category: Escape to the country (Mosaic type: Professional rewards)**

Comprised of comfortable families in thriving rural villages, are often daily commuters, are professionals and managers with good qualifications and are good decision makers. Have a sense of community and want good places for their children.

# Delamere

Quality of experience surveys were undertaken by contractors at Delamere in 2006 and 2011. In 2011 233 people were included in the survey (BMG, 2012c).

## Key results from the Quality of experience survey 2011

### Type of visits

94% were visiting Delamere as part of a day trip of less than three hours from home. Few visited as part of an overnight stay. 82% had been to Delamere previously.

Excluding first time visitors 20% visited Delamere weekly, 20% visited monthly and 45% visited yearly. The average time spent on site was 2 hours and 32 minutes.

### Demographics of visitors

52% of visitors were male and 48% female. 67% were under 45 years of age and 30% were aged 45 or over. 3% were aged 16-24 years. 3% of visitors had a disability. 53% of visitors were families (had children in household) while 58% of respondents had children in their group when they were surveyed.

The mean number of people visiting in a group was 4 people.

[17] The Discovery Pass provides visitors with a years free parking at their local forest, a seasonal e-newsletter and a number of discounts e.g. on Forest Holiday.

## Activities undertaken

In terms of sports activity, 36% were undertaking cycling and 3% were running. In terms of other popular activities, 67% were walking and 30% used the cafe. In all 37% took part in 'active' activities and 61% in 'passive' activities.

## Benefits of visiting

People were asked an open question about what they most liked most about Delamere and the top four favourite aspects were:

1. Walks/paths and trails (40%)
2. Beautiful scenery and views (38%)
3. Peace, tranquillity and relaxation (21%)
4. Cycle trails, freedom and opportunity to cycle (16%)

## Customer profile of Delamere Discovery Pass Visitors

99% of Discovery pass visitors live within an hours drive of the site, with all of these people living within 50 miles of Delamere.

The top three customer types to Delamere are outlined below (Experien, 2011c).

**Mosaic category: Yesterday's captains (Mosaic type: Professional rewards)**

This group are mostly older professionals and managers living in attractive and spacious houses. They have active minds and interests and are approaching or have recently retired, whose children have left home. They are comfortably off, but also wise in dealing with a declining income.

**Mosaic category: Dormitory villagers (Mosaic type: Professional rewards)**

Comprised of commuter villages, where new developments of private housing are common. Young families settled there and grown older so that now the residential areas accommodate empty nesters and families with adult children living at home.

**Mosaic category: Squires among locals (Mosaic type: Rural solitude)**

This group includes well off individuals living in rural areas in farms or country houses within reasonable distance of centres of population. The houses may have belonged to agricultural workers and have been renovated to attract high earning professionals and business people working in nearby towns.

# Thames Chase Forest Centre

A quality of experience survey undertaken in 2004 covered Pages Wood and Mardyke Woods rather than Thames Chase Forest Centre where the locals know the woodland as

Broadfields Farm: it used to be a working farm. Therefore, details cannot be provided on this woodland at present.

# Birches Valley Cannock Chase

Quality of experience surveys were undertaken by contractors at Cannock Chase in 2010 and 2013. In 2013, 223 visitors were included in a survey (Beaufort Research, 2014a).

## Key results from the Quality of experience survey 2013

### Type of visits

81% of respondents had visited the site before. Almost nine in ten visitors had travelled fewer than 3 hours for a day trip to the site. The average time spent on site was 2 hours and 31 minutes.

### Demographics of visitors

Thirty five percent of visitors were aged 35 to 44% with only 4% aged 65+. Twenty six percent were 25 to 34 years of age. Seventy three percent of visitors where in the higher socio-economic grouping ABC1. Sixty six percent of visitors were male and 35% were female. Three percent of visitors described themselves as black, asian, mixed race and the rest 96% were white British. 41% of visitors had children in their household and 26% were accompanied by children.

The mean number of those visiting in a group was 3 people.

### Activities undertaken

Cycling was the most popular activity with 72% of respondents doing this, of these people 21% cycled on forest roads/tracks and 61% were cycling/mountain biking on trails and tracks. 28% of people were walking and 1% were jogging. 8% used the play area and 60% the café.  Cycling was most popular with the 16 to 34 year olds (81%).

The average time spent on walking activities was 1 hour 37 minutes and the average time spent on cycling was 2 hours 19 minutes.

### Benefits of visiting

1. Cycle trails and opportunity to cycle (68%)
2. Fresh air and being outside (64%)
3. Exercise / keeping fit (62%)
4. Peace, tranquillity, relaxation (39%)

### Customer profile of Cannock Chase and Wyre Forest Discovery Pass Visitors

95% of visitors live within 50 miles of the sites they visit.

The top three customer types to Cannock Chase and Wyre Forest are outlined below (Experien, 2011d).

**Mosaic category: Yesterday's captains (Mosaic type: Professional rewards)**

This group are mostly older professionals and managers living in attractive and spacious houses. They have active minds and interests and are approaching or have recently retired, whose children have left home. They are comfortably off, but also wise in dealing with a declining income.

**Mosaic category: Innate Conservatives (Mosaic type: Small town diversity)**

Comprised of people living in mixed housing styles, includes retired married couples, self employed. They have good social networks, take pride in their home and gardens. They are hard working, reasonable with savings and investments.

**Mosaic category: Squires among locals (Mosaic type: Rural solitude)**

This group includes well off individuals living in rural areas in farms or country houses within reasonable distance of centres of population. The houses may have belonged to agricultural workers and have been renovated to attract high earning professionals and business people working in nearby towns.

## Jeskyns

At present no Quality of experience or customer profile work has been done at Jeskyns

## Sherwood Pines

Quality of experience surveys were undertaken by contractors at Sherwood Pines in 2010 and 2013. In 2013, 207 people were included in the survey (Beaufort Research, 2014b).

### Key results from the Quality of experience survey 2013

### Types of visits

75% of visitors were visiting as part of a day trip of less than three hours from home. 36% were first time visitors to the site. The average length of visit was 2 hours and 29 minutes. Excluding first time visitors, 14% visited weekly and 23% monthly, 20% visited 1-3 times a year and 21% visited less often.

## Demographics of visitors

59% of visitors were female and 41% were male, and 42% of visitors had children living at home and 44% were accompanied by children on their visit. 25% of visitors were aged 35-44 years, with only 6% aged 65 or over. 70% of visitors were from the ABC1 socio-economic group. 97% were white British with 1% 'other' white and 2% black asian or mixed race. The mean number of people visiting in a group was 3.9.

## Activities undertaken

The most popular activity was walking (53%) with 23% cycling or mountain biking and 1% running. 23% used the play area and 50% the café.

## Benefits of visiting

People were asked what they most liked about the site and the top four favourite aspects were:

1. Peace, tranquillity and relaxation (30%)
2. Scenery and views (29%)
3. Activities for children (26%)
4. Cycle trails and opportunity to cycle (25%).

## Customer profile of Sherwood Pines Discover Pass Visitors

93% of visitors lived within an hours drive time of the forest and 6% lived within 1-2 hours.

The top three customer types to Sherwood pines are outlined below (Experien, 2011e).

**Mosaic category: Soccer mums and dads (Mosaic type: Careers and kids)**

This group are in their thirties and forties mostly living within recently built but not necessarily new housing. They are addressing the requirements of a growing family, live in commuter areas, have a substantial mortgage with school age children and are time conscious.

**Mosaic category: Hardworking families (Mosaic type: Small town diversity)**

This group is mostly industrious empty nesters living in unpretentious low density housing estates on the edge of medium sized towns. They have a mix of occupations, few qualifications and reasonable incomes. They are hard working and have mainstream tastes.

**Mosaic category: Clocking off (Mosaic type: Industrial heritage)**

This group comprises large number of married people in their 50s and 60s where the husbands had good manual jobs in manufacturing or mining. They have grown up children and live in spacious semi-detached houses. They are more likely to have stay at home wives and old fashioned values.

# Dalby

Quality of experience surveys were undertaken by contractors at Dalby in 2009 and 2012. In 2012, 246 people were included in the study (BMG, 2013).

## Types of visits

60% respondents were visiting as part of a day trip of less than three hours. 89% had visited Dalby previously. 22% were visiting the site as part of a day trip lasting more than three hours.

The average time spent on site was 2hours and 32 minutes.

## Demographics of visitors

72% of visitors were male and 28% were female. 69% were aged under 45 and 31% were aged over 45. The mean number of people visiting in a group was 4 people.

## Activities undertaken

In terms of sports activity, 72% were cycling, 1% orienteering and 1% horseriding. Walking was also popular for 28% and 15% used the play area.

## Benefits of visiting

People were asked an open question about what they most liked about Dalby and the top four favourite aspects were:

1. Cycling and opportunity to cycle (57%)
2. Scenery and views (37%)
3. Good on site facilities (24%)
4. Peace, tranquillity and relaxation (23%)

## Customer profile of Dalby Forest Discover Pass Visitors

Fifty five percent of visitors live within an hour (drive time) of the site and 41% between 1 and two hours.

The top three customer types to Dalby Forest are outlined below (Experien, 2011f).

**Mosaic category: Jack of all trades (Mosaic type: Small town diversity)**

This group are older owner occupiers in comfortable spacious homes. They are typically responsible skilled manual workers many of which are self employed. They have extensive social networks and there is little population movement.

**Mosaic category: Innate Conservatives (Mosaic type: Small town diversity)**

Comprised of people living in mixed housing styles, includes retired married couples, self employed. They have good social networks, take pride in their home and gardens. They are hard working, reasonable with savings and investments.

**Mosaic category: Country loving elders (Mosaic type: Rural solitude)**

This group lives in small, quiet and scattered communities. They live in places attractive enough to appeal to people as retirement destinations. Farming still plays an important role in the area but no longer employs many people. Village life is too quiet to attract families from the nearest towns. They are on the edge of tourist areas, are active and have community spirit.

## Summary

Differences and commonalities between the sites include the following:

- Thetford (32%) and Sherwood Pines (36%) had more people who had not visited the sites previously
- Visitors stayed on site longer at Bedgebury (2hrs 58) and Thetford (2hrs 53)
- Birches Valley (66%) and Dalby (72%) both had more male visitors and fewer female visitors
- All sites had more visitors under 45 years of age than over 45 years of age
- Nearly three quarters of visitors to Birches Valley and Sherwood Pines were in the higher socio-economic group ABC1. This was not reported on at the other sites
- Cycling was particularly popular as an activity at Begebury (60%), Birches Valley (72%) and Dalby (72%)
- Use of play areas was undertaken more at Begebury (38%) and Thetford (35%)
- Delamere (3%) had more people running than the other sites
- What most people liked at all of the sites were:
    - Scenery and views
    - Peace and relaxation
    - Cycling and opportunities to cycle.

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BMG Research. 2012b. Quality of visitor experience survey: High lodge, Thetford. Prepared for the Forestry Commission.
BMG Research. 2012c. Quality of visitor experience survey: Delamere. Prepared for the Forestry Commission.
BMG Research. 2013. Quality of visitor experience survey: Dalby Forest. Prepared for the Forestry Commission.
Experien. 2011a. Customer profile report. Forestry Commission Bedgebury Customers.
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Experien. 2011c. Customer profile report. Forestry Commission Delamere Forest.
Experien. 2011d. Customer profile report. Forestry Commission Cannock Chase and Wyre Forest.
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O'Brien, L and Morris, J. 2009. Active England: The Woodland Projects. Report to the Forestry Commission, pp 76. http://www.forestry.gov.uk/fr/INFD-6W8KLM
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# Appendix 3. Additional data tables and charts

Figure A3.1. Participant survey: Total number of people responding to survey through time, broken down by forest and those responding/not responding by iPad.

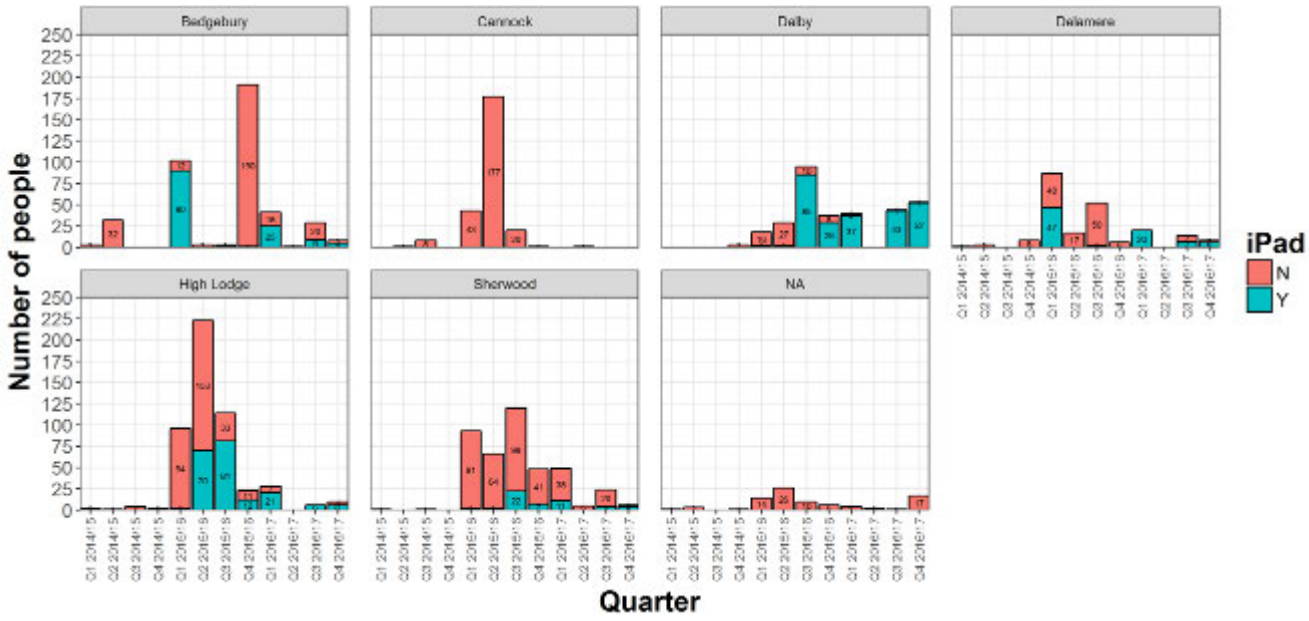

Table A3.1. Total and cumulative forest visits from throughput data.

| Forest | Quarter | Year | Sum | Cumulative Sum | Forest (cont…) | Quarter (cont…) | Year (cont…) | Sum (cont…) | Cumulative Sum (cont…) |
|---|---|---|---|---|---|---|---|---|---|
| All | Q1 | 2014/15 | 29,955 | 29,955 | Delamere | Q1 | 2014/15 | 5,223 | 5,223 |
| All | Q2 | 2014/15 | 35,370 | 65,325 | Delamere | Q2 | 2014/15 | 3,342 | 8,565 |
| All | Q3 | 2014/15 | 18,392 | 83,717 | Delamere | Q3 | 2014/15 | 5,302 | 13,867 |
| All | Q4 | 2014/15 | 21,825 | 105,542 | Delamere | Q4 | 2014/15 | 5,493 | 19,360 |
| All | Q1 | 2015/16 | 51,003 | 156,545 | Delamere | Q1 | 2015/16 | 8,834 | 28,194 |
| All | Q2 | 2015/16 | 97,680 | 254,225 | Delamere | Q2 | 2015/16 | 22,160 | 50,354 |
| All | Q3 | 2015/16 | 43,439 | 297,664 | Delamere | Q3 | 2015/16 | 12,993 | 63,347 |
| All | Q4 | 2015/16 | 36,969 | 334,633 | Delamere | Q4 | 2015/16 | 11,448 | 74,795 |
| All | Q1 | 2016/17 | 94,464 | 429,097 | Delamere | Q1 | 2016/17 | 14,451 | 89,246 |
| All | Q2 | 2016/17 | 159,888 | 588,985 | Delamere | Q2 | 2016/17 | 50,144 | 139,390 |
| All | Q3 | 2016/17 | 52,853 | 641,838 | Delamere | Q3 | 2016/17 | 10,219 | 149,609 |
| All | Q4 | 2016/17 | 58,259 | 700,097 | Delamere | Q4 | 2016/17 | 13,590 | 163,199 |
| Bedgebury | Q1 | 2014/15 | 6,941 | 6,941 | High Lodge | Q1 | 2014/15 | 10,228 | 10,228 |
| Bedgebury | Q2 | 2014/15 | 6,792 | 13,733 | High Lodge | Q2 | 2014/15 | 13,842 | 24,070 |
| Bedgebury | Q3 | 2014/15 | 1,368 | 15,101 | High Lodge | Q3 | 2014/15 | 5,361 | 29,431 |
| Bedgebury | Q4 | 2014/15 | 3,881 | 18,982 | High Lodge | Q4 | 2014/15 | 5,529 | 34,960 |
| Bedgebury | Q1 | 2015/16 | 7,426 | 26,408 | High Lodge | Q1 | 2015/16 | 19,563 | 54,523 |
| Bedgebury | Q2 | 2015/16 | 8,507 | 34,915 | High Lodge | Q2 | 2015/16 | 45,487 | 100,010 |
| Bedgebury | Q3 | 2015/16 | 5,586 | 40,501 | High Lodge | Q3 | 2015/16 | 10,534 | 110,544 |
| Bedgebury | Q4 | 2015/16 | 4,949 | 45,450 | High Lodge | Q4 | 2015/16 | 3,203 | 113,747 |
| Bedgebury | Q1 | 2016/17 | 18,965 | 64,415 | High Lodge | Q1 | 2016/17 | 27,444 | 141,191 |
| Bedgebury | Q2 | 2016/17 | 25,457 | 89,872 | High Lodge | Q2 | 2016/17 | 32,984 | 174,175 |
| Bedgebury | Q3 | 2016/17 | 7,700 | 97,572 | High Lodge | Q3 | 2016/17 | 13,649 | 187,824 |
| Bedgebury | Q4 | 2016/17 | 851 | 98,423 | High Lodge | Q4 | 2016/17 | 13,398 | 201,222 |
| Cannock | Q1 | 2014/15 | 1,195 | 1,195 | Sherwood | Q1 | 2014/15 | 2,395 | 2,395 |
| Cannock | Q2 | 2014/15 | 2,534 | 3,729 | Sherwood | Q2 | 2014/15 | 4,021 | 6,416 |
| Cannock | Q3 | 2014/15 | 699 | 4,428 | Sherwood | Q3 | 2014/15 | 4,215 | 10,631 |
| Cannock | Q4 | 2014/15 | 2,970 | 7,398 | Sherwood | Q4 | 2014/15 | 2,000 | 12,631 |
| Cannock | Q1 | 2015/16 | 1,209 | 8,607 | Sherwood | Q1 | 2015/16 | 5,362 | 17,993 |
| Cannock | Q2 | 2015/16 | 2,651 | 11,258 | Sherwood | Q2 | 2015/16 | 7,957 | 25,950 |
| Cannock | Q3 | 2015/16 | 1,582 | 12,840 | Sherwood | Q3 | 2015/16 | 11,120 | 37,070 |
| Cannock | Q4 | 2015/16 | 3,104 | 15,944 | Sherwood | Q4 | 2015/16 | 11,579 | 48,649 |
| Cannock | Q1 | 2016/17 | 1,839 | 17,783 | Sherwood | Q1 | 2016/17 | 19,960 | 68,609 |
| Cannock | Q2 | 2016/17 | 2,971 | 20,754 | Sherwood | Q2 | 2016/17 | 22,571 | 91,180 |
| Cannock | Q3 | 2016/17 | 5,975 | 26,729 | Sherwood | Q3 | 2016/17 | 11,234 | 102,414 |
| Dalby | Q1 | 2014/15 | 3,973 | 3,973 | Sherwood | Q4 | 2016/17 | 25,933 | 128,347 |
| Dalby | Q2 | 2014/15 | 4,839 | 8,812 | | | | | |
| Dalby | Q3 | 2014/15 | 1,447 | 10,259 | | | | | |
| Dalby | Q4 | 2014/15 | 1,952 | 12,211 | | | | | |
| Dalby | Q1 | 2015/16 | 8,609 | 20,820 | | | | | |
| Dalby | Q2 | 2015/16 | 10,918 | 31,738 | | | | | |
| Dalby | Q3 | 2015/16 | 1,624 | 33,362 | | | | | |
| Dalby | Q4 | 2015/16 | 2,686 | 36,048 | | | | | |
| Dalby | Q1 | 2016/17 | 11,805 | 47,853 | | | | | |
| Dalby | Q2 | 2016/17 | 25,761 | 73,614 | | | | | |
| Dalby | Q3 | 2016/17 | 4,076 | 77,690 | | | | | |
| Dalby | Q4 | 2016/17 | 4,487 | 82,177 | | | | | |

Figure A3.2. Number of visits recorded by forest site by quarter: percentage change from annual average.

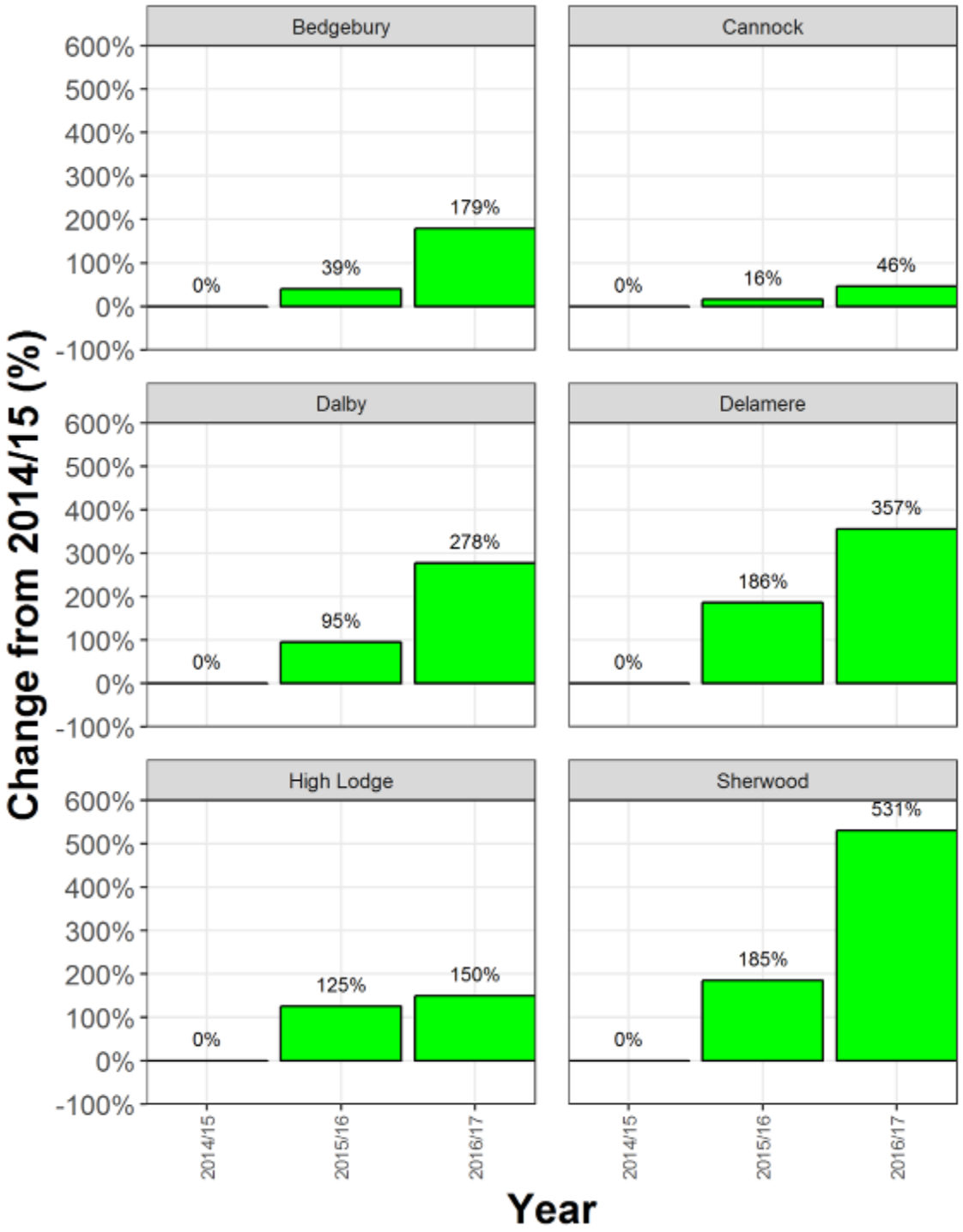

Figure A3.3. Percentage change in visits by activity and forest site per quarter, based on the quarterly average per site.

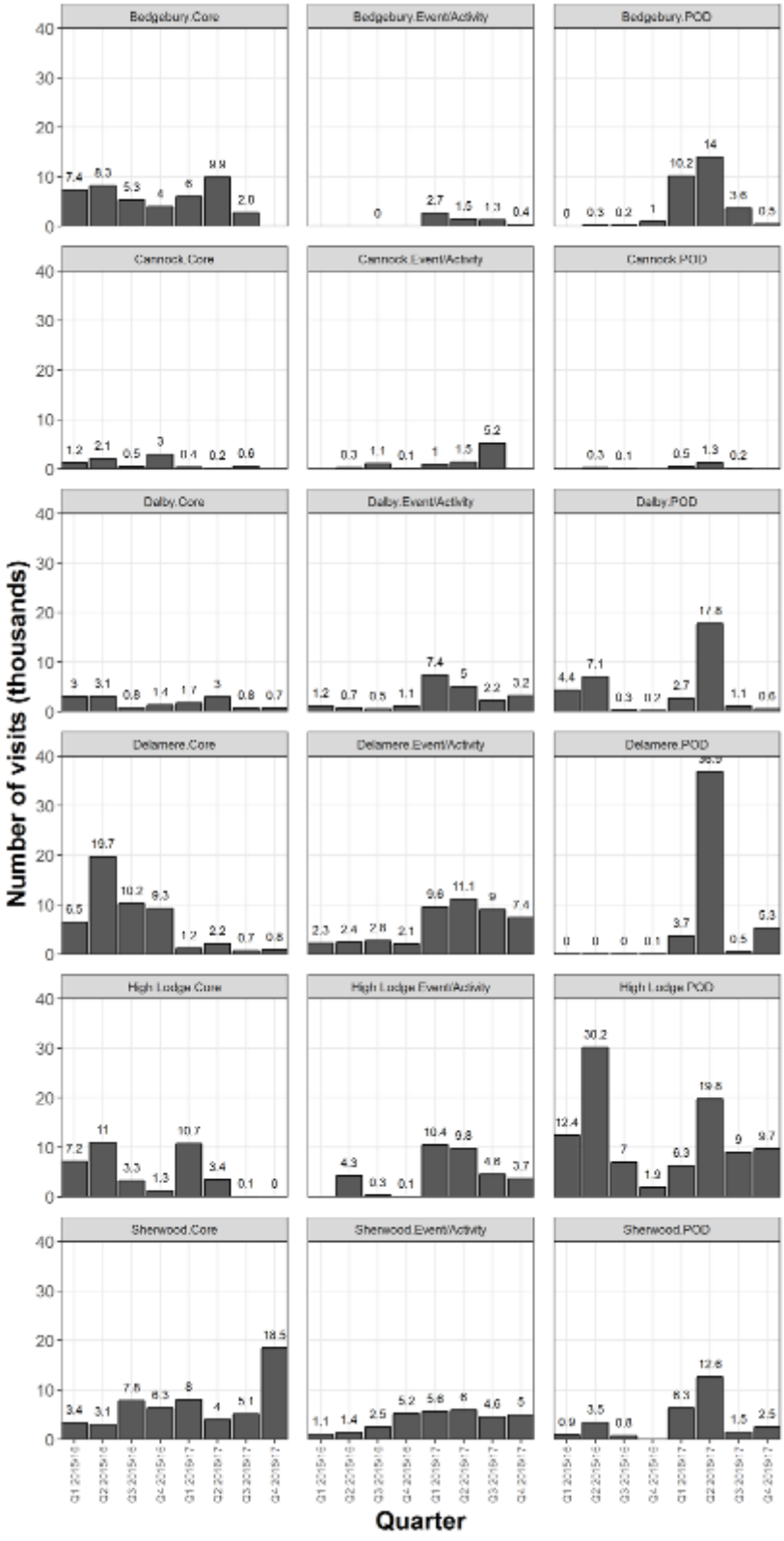

Figure A3.4. Number of visits recorded by activity by quarter.

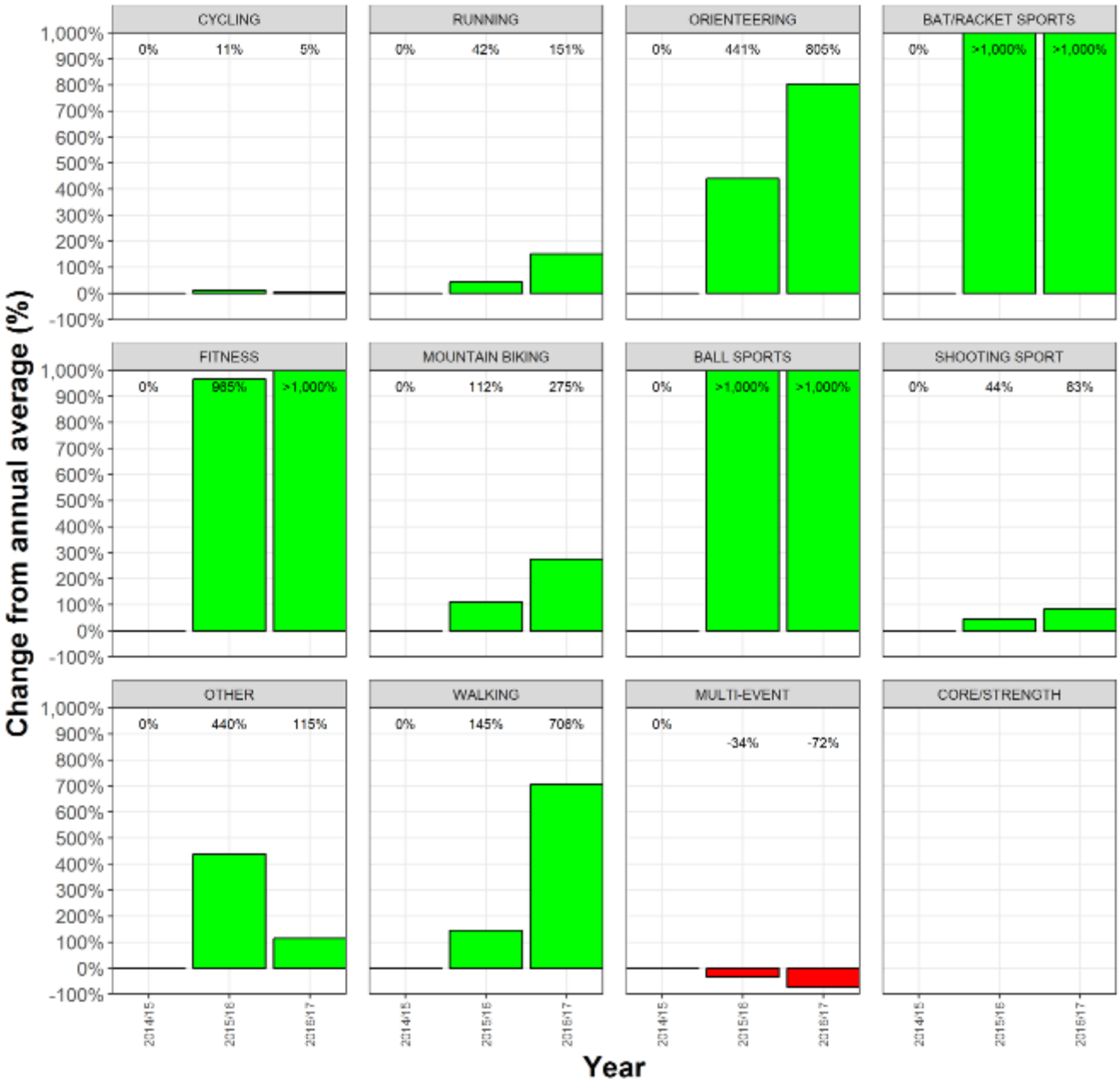

Figure A3.5. Number of visits recorded by main activity (top 3) by quarter for the six main forest sites.

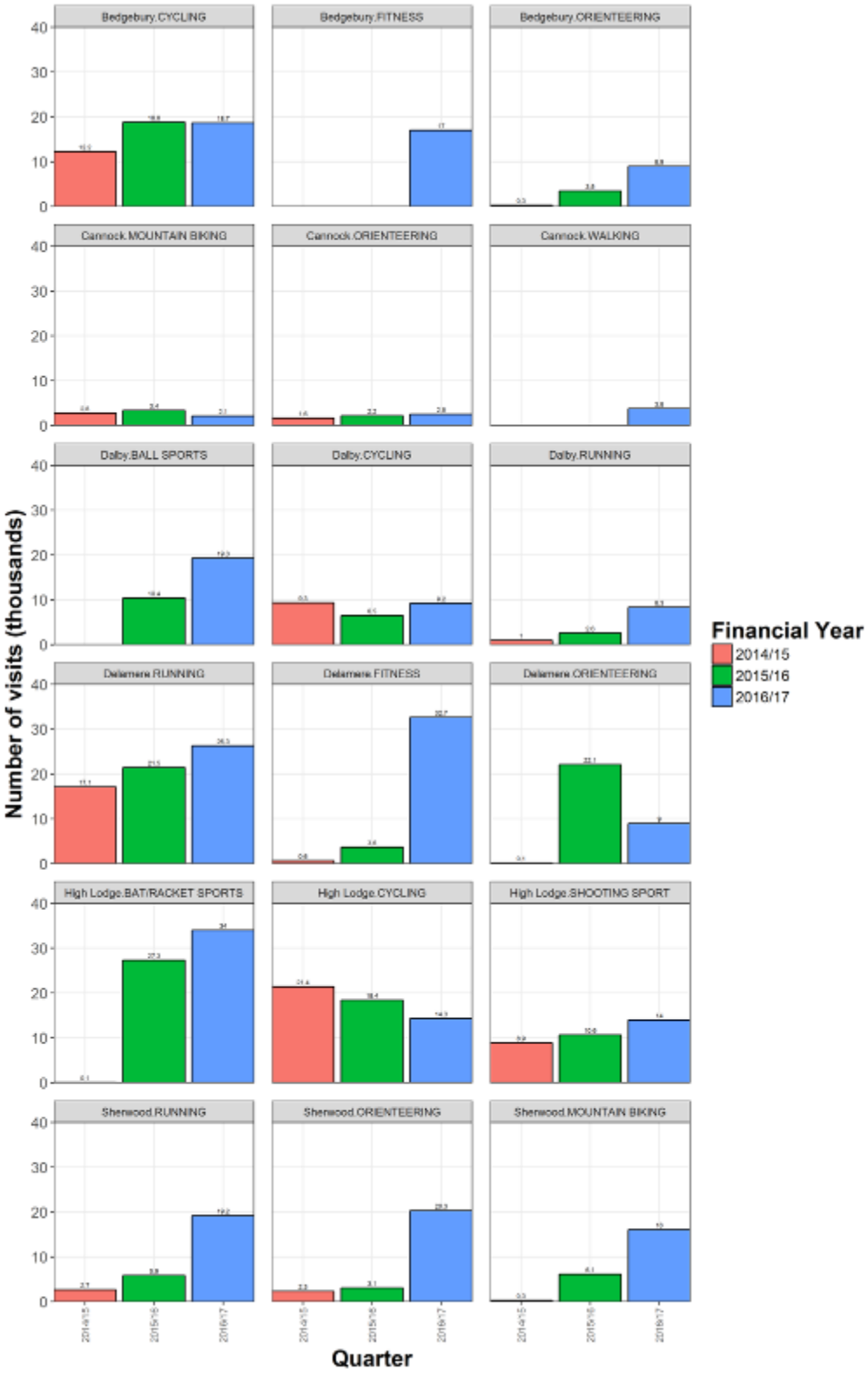

Table A3.2. Number of visits broken down by specific sports/activities and forest site.

| Activity (Broad) | Activity (Specific) | Forest | | | | | | Grand Total |
|---|---|---|---|---|---|---|---|---|
| | | Bedgebury | Cannock | Dalby | Delamere | High Lodge | Sherwood | |
| BALL SPORTS | Football | 0 | 0 | 17,945 | 0 | 215 | 7,950 | 26,110 |
| BALL SPORTS | Netball | 0 | 0 | 966 | 0 | 0 | 0 | 966 |
| BALL SPORTS | Volleyball | 0 | 30 | 10,747 | 0 | 9,032 | 4,980 | 24,789 |
| BAT/RACKET SPORTS | Badminton | 0 | 0 | 0 | 0 | 486 | 0 | 486 |
| BAT/RACKET SPORTS | Table Tennis | 3,358 | 0 | 1,866 | 9,747 | 60,946 | 0 | 75,917 |
| BAT/RACKET SPORTS | Tennis | 0 | 65 | 0 | 0 | 0 | 350 | 415 |
| CORE/STRENGTH | Pilates | 0 | 0 | 0 | 892 | 0 | 20 | 912 |
| CORE/STRENGTH | Tai Chi | 0 | 0 | 0 | 90 | 0 | 0 | 90 |
| CORE/STRENGTH | Yoga | 0 | 0 | 0 | 501 | 0 | 0 | 501 |
| CYCLING | Cycle Event | 191 | 101 | 661 | 0 | 1,997 | 1,150 | 4,100 |
| CYCLING | Cycle Happy Sheets | 270 | 0 | 959 | 320 | 6,285 | 2,950 | 10,784 |
| CYCLING | Cycle Hire | 49,279 | 3,422 | 20,331 | 945 | 45,591 | 17,380 | 136,948 |
| CYCLING | Cycling | 0 | 0 | 0 | 493 | 0 | 225 | 718 |
| CYCLING | Road Cycling | 0 | 0 | 3,000 | 0 | 289 | 0 | 3,289 |
| FITNESS | Boot Camp | 0 | 0 | 0 | 2,085 | 0 | 118 | 2,203 |
| FITNESS | Fitness | 0 | 225 | 154 | 6,752 | 4,245 | 5,202 | 16,578 |
| FITNESS | Stickman Trail | 17,016 | 0 | 150 | 28,108 | 0 | 0 | 45,274 |
| MOUNTAIN BIKING | Mountain Biking | 5,310 | 8,291 | 3,378 | 7,640 | 1,810 | 22,444 | 48,873 |
| MULTI-EVENT | Duathlon | 0 | 0 | 0 | 0 | 1,200 | 1,000 | 2,200 |
| MULTI-EVENT | Tri/Duathlon | 0 | 162 | 161 | 0 | 0 | 1,265 | 1,588 |
| ORIENTEERING | Gruffalo Orienteering | 11,361 | 2,420 | 698 | 28,026 | 10,592 | 19,370 | 72,467 |
| ORIENTEERING | Orienteering | 1,341 | 3,869 | 6,839 | 3,198 | 599 | 6,369 | 22,215 |
| OTHER | Climbing | 0 | 0 | 519 | 0 | 9,511 | 0 | 10,030 |
| OTHER | Equestrian | 0 | 466 | 0 | 375 | 0 | 644 | 1,485 |
| OTHER | Other | 0 | 295 | 134 | 49 | 1,691 | 1,495 | 3,664 |
| RUNNING | Parkrun | 4,005 | 0 | 6,652 | 27,764 | 11,801 | 22,032 | 72,254 |
| RUNNING | Running | 2,949 | 3,608 | 5,180 | 37,113 | 832 | 3,128 | 52,810 |
| RUNNING | Running Events | 905 | 0 | 0 | 0 | 586 | 2,558 | 4,049 |
| SHOOTING SPORT | Archery | 2,438 | 0 | 1,629 | 6,971 | 33,514 | 5,355 | 49,907 |
| SHOOTING SPORT | Shooting | 0 | 0 | 37 | 0 | 0 | 0 | 37 |
| WALKING | Nordic Walking | 0 | 0 | 171 | 2,130 | 0 | 1,977 | 4,278 |
| WALKING | Walking | 0 | 3,775 | 0 | 0 | 0 | 385 | 4,160 |
| Grand Total | | 98,423 | 26,729 | 82,177 | 163,199 | 201,222 | 128,347 | 700,097 |

Table A3.3. Number of visits broken down by specific sports/activities and quarter.

| Activity (Broad) | Activity (Specific) | Q1 2014/15 | Q2 2014/15 | Q3 2014/15 | Q4 2014/15 | Q1 2015/16 | Q2 2015/16 | Q3 2015/16 | Q4 2015/16 | Q1 2016/17 | Q2 2016/17 | Q3 2016/17 | Q4 2016/17 | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BALL SPORTS | Football | | | | | 1,118 | 2,979 | 23 | 131 | 1,090 | 16,865 | 1,404 | 2,500 | 26,110 |
| BALL SPORTS | Netball | | | | | | | | | 86 | 880 | | | 966 |
| BALL SPORTS | Volleyball | 46 | | | | 6,441 | 12,192 | 782 | | 1,328 | 3,752 | 248 | | 24,789 |
| BAT/RACKET SPORTS | Badminton | | | | | | 486 | | | | | | | 486 |
| BAT/RACKET SPORTS | Table Tennis | 78 | | | | 4,559 | 15,764 | 5,580 | 1,962 | 8,065 | 19,511 | 7,947 | 12,451 | 75,917 |
| BAT/RACKET SPORTS | Tennis | | | | | 70 | 275 | | | | 70 | | | 415 |
| CORE/STRENGTH | Pilates | | | | | | | | | | 577 | 157 | 178 | 912 |
| CORE/STRENGTH | Tai Chi | | | | | | | | | 74 | 16 | | | 90 |
| CORE/STRENGTH | Yoga | | | | | | | | | 20 | 438 | 43 | | 501 |
| CYCLING | Cycle Event | 527 | 882 | 1,146 | 1,545 | | | | | | | | | 4,100 |
| CYCLING | Cycle Happy Sheets | | | | | | | | 650 | 2,951 | 4,153 | 551 | 2,479 | 10,784 |
| CYCLING | Cycle Hire | 12,162 | 19,570 | 5,592 | 7,470 | 16,384 | 22,276 | 9,023 | 6,212 | 18,767 | 15,076 | 3,855 | 561 | 136,948 |
| CYCLING | Cycling | 25 | 300 | | | | | | | | 334 | 59 | | 718 |
| CYCLING | Road Cycling | | | | | | | 289 | | 3,000 | | | | 3,289 |
| FITNESS | Boot Camp | | | | | 118 | | | | 60 | 820 | 385 | 820 | 2,203 |
| FITNESS | Fitness | | | | 646 | 1,160 | 2,578 | 939 | 2,088 | 6,319 | 1,859 | 766 | 223 | 16,578 |
| FITNESS | Stickman Trail | | | | | | | | | 6,694 | 36,964 | 1,616 | | 45,274 |
| MOUNTAIN BIKING | Mountain Biking | 1,775 | 2,138 | 980 | 2,229 | 4,260 | 3,784 | 3,993 | 3,027 | 6,119 | 4,952 | 3,928 | 11,688 | 48,873 |
| MULTI-EVENT | Duathlon | 1,200 | | 750 | | | | | | | | 250 | | 2,200 |
| MULTI-EVENT | Tri/Duathlon | | | | | | | 1,272 | 20 | 125 | 102 | 69 | | 1,588 |
| ORIENTEERING | Gruffalo Orienteering | | | | | | 12,748 | 6,394 | 4,756 | 11,906 | 23,935 | 4,878 | 7,850 | 72,467 |
| ORIENTEERING | Orienteering | 2,076 | 1,577 | 1,003 | 1,470 | 2,169 | 1,820 | 1,810 | 3,440 | 2,414 | 2,430 | 1,603 | 403 | 22,215 |
| OTHER | Climbing | | | | 146 | 2,412 | 3,885 | | | 1,614 | 1,973 | | | 10,030 |
| OTHER | Equestrian | 620 | 100 | 75 | 132 | 50 | 67 | | 297 | | 144 | | | 1,485 |
| OTHER | Other | 460 | 124 | 120 | | | 2,804 | 72 | | | 74 | 10 | | 3,664 |
| RUNNING | Parkrun | 701 | 715 | 585 | 730 | 3,852 | 4,306 | 6,630 | 9,082 | 11,102 | 11,405 | 10,606 | 12,540 | 72,254 |
| RUNNING | Running | 5,069 | 3,708 | 5,683 | 4,909 | 3,503 | 3,510 | 3,215 | 3,146 | 3,656 | 5,637 | 6,957 | 3,817 | 52,810 |
| RUNNING | Running Events | 1,173 | 1,778 | 1,063 | 35 | | | | | | | | | 4,049 |
| SHOOTING SPORT | Archery | 3,953 | 4,458 | 1,120 | 2,165 | 4,632 | 7,590 | 3,068 | 1,600 | 8,220 | 7,689 | 3,121 | 2,291 | 49,907 |
| SHOOTING SPORT | Shooting | | | | | | | | | 37 | | | | 37 |
| WALKING | Nordic Walking | | | | 348 | 275 | 616 | 349 | 558 | 817 | 232 | 625 | 458 | 4,278 |
| WALKING | Walking | 90 | 20 | 275 | | | | | | | | 3,775 | | 4,160 |
| Grand Total | | 29,955 | 35,370 | 18,392 | 21,825 | 51,003 | 97,680 | 43,439 | 36,969 | 94,464 | 159,888 | 52,853 | 58,259 | 700,097 |

Figure A3.6. Participant survey: Total number of people responding to survey, broken down by forest site, age and accompanying children.

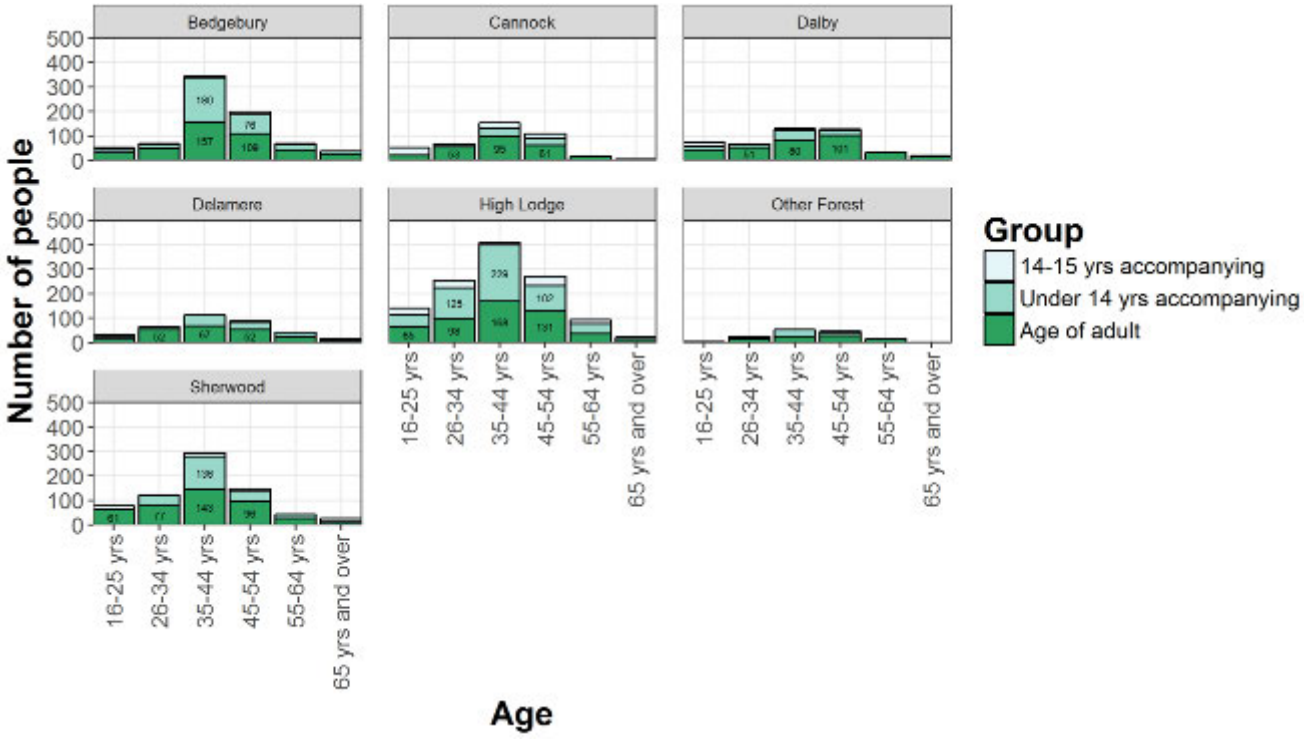

Table A3.4. Statistical analysis of significant factors driving activities undertaken by individuals completing the Participant Survey.

| Activity | Predictor | Likelihood Ratio $\chi^2$ Test Statistic | DF | p |
|---|---|---|---|---|
| Mountain biking | **Forest Site** | **209.3** | **6** | **<0.001** |
| | **Age Category** | **46.3** | **5** | **<0.001** |
| | **Frequency of Activity** | **14.4** | **4** | **0.006** |
| | **New Activity (Yes/No)** | **12.5** | **1** | **<0.001** |
| | **Accompanied by under 16 (Yes/No)** | **11.4** | **1** | **<0.001** |
| Cycling | **Forest Site** | **97.5** | **6** | **<0.001** |
| | **Accompanied by under 16 (Yes/No)** | **30.6** | **1** | **<0.001** |
| | **Frequency of Activity** | **23.7** | **4** | **<0.001** |
| | **New Activity (Yes/No)** | **5.3** | **1** | **0.021** |
| | Age Category | 7.9 | 5 | 0.161 |
| Running | **Forest Site** | **310.3** | **6** | **<0.001** |
| | **Frequency of Activity** | **95.9** | **4** | **<0.001** |
| | **Accompanied by under 16 (Yes/No)** | **53.8** | **1** | **<0.001** |
| | **Age Category** | **28.5** | **5** | **<0.001** |
| | New Activity (Yes/No) | 1.9 | 1 | 0.165 |
| Walking | **Age Category** | **56.7** | **5** | **<0.001** |
| | **Forest Site** | **21.2** | **6** | **0.002** |
| | **Frequency of Activity** | **16.2** | **4** | **0.003** |
| | **Accompanied by under 16 (Yes/No)** | **7.4** | **1** | **0.007** |
| | New Activity (Yes/No) | 1.0 | 1 | 0.317 |
| Archery | **Forest Site** | **66.0** | **6** | **<0.001** |
| | **Frequency of Activity** | **13.2** | **4** | **0.010** |
| | **New Activity (Yes/No)** | **4.7** | **1** | **0.030** |
| | Age Category | 6.4 | 5 | 0.267 |
| | Accompanied by under 16 (Yes/No) | 1.5 | 1 | 0.222 |

Table A3.5. Statistical analysis of significant factors driving activities undertaken by individuals completing the Participant Survey: post hoc tests for frequency of activity. Estimated proportions are averaged across other predictors included in Table A3.4.

| Activity | Frequency of Activity | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Mountain biking | Not in the last six months | 6% | 2% | a |
| | Less than once a month | 8% | 2% | a |
| | At least once a month | 13% | 2% | a |
| | At least once a week | 15% | 2% | a |
| | More than once a week | 15% | 2% | a |
| Cycling | Not in the last six months | 12% | 4% | abc |
| | More than once a week | 14% | 2% | a |
| | At least once a week | 17% | 2% | ab |
| | At least once a month | 21% | 3% | bc |
| | Less than once a month | 28% | 4% | c |
| Running | At least once a month | 3% | 1% | a |
| | At least once a week | 5% | 1% | a |
| | Less than once a month | 6% | 2% | a |
| | Not in the last six months | 7% | 2% | ab |
| | More than once a week | 14% | 2% | b |
| Walking | More than once a week | 9% | 1% | a |
| | Not in the last six months | 13% | 5% | ab |
| | At least once a month | 13% | 2% | ab |
| | Less than once a month | 14% | 4% | ab |
| | At least once a week | 16% | 2% | b |
| Archery | More than once a week | 0.0% | 5% | a |
| | Less than once a month | 0.0% | 7% | ab |
| | At least once a month | 0.0% | 10% | ab |
| | At least once a week | 0.1% | 12% | b |
| | Not in the last six months | 0.1% | 19% | ab |

Table A3.6. Statistical analysis of significant factors driving activities undertaken by individuals completing the Participant Survey: post hoc tests for age category. Estimated proportions are averaged across other predictors included in Table A3.4.

| Activity | Age Category | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Mountain biking | 55-64 yrs | 5% | 1% | a |
| | 65 yrs and over | 5% | 2% | ab |
| | 45-55 yrs | 15% | 2% | bc |
| | 26-34 yrs | 16% | 2% | bc |
| | 16-25 yrs | 16% | 3% | bc |
| | 35-44 yrs | 17% | 2% | c |
| Cycling | 55-64 yrs | 14% | 3% | a |
| | 65 yrs and over | 15% | 4% | a |
| | 35-44 yrs | 17% | 2% | a |
| | 45-55 yrs | 20% | 2% | a |
| | 16-25 yrs | 21% | 3% | a |
| | 26-34 yrs | 21% | 3% | a |
| Running | 65 yrs and over | 3% | 1% | ab |
| | 16-25 yrs | 4% | 1% | a |
| | 55-64 yrs | 7% | 2% | abc |
| | 26-34 yrs | 9% | 2% | bc |
| | 45-55 yrs | 9% | 1% | bc |
| | 35-44 yrs | 10% | 2% | c |
| Walking | 16-25 yrs | 6% | 2% | a |
| | 26-34 yrs | 8% | 2% | a |
| | 45-55 yrs | 9% | 2% | a |
| | 35-44 yrs | 9% | 2% | a |
| | 55-64 yrs | 20% | 4% | b |
| | 65 yrs and over | 39% | 7% | c |
| Archery | 16-25 yrs | 0.0% | 5% | a |
| | 45-55 yrs | 0.0% | 8% | a |
| | 26-34 yrs | 0.0% | 8% | a |
| | 35-44 yrs | 0.0% | 9% | a |
| | 65 yrs and over | 0.1% | 15% | a |
| | 55-64 yrs | 0.1% | 16% | a |

Table A3.7. Statistical analysis of significant factors driving activities undertaken by individuals completing the Participant Survey: post hoc tests for new activity (yes/no). Estimated proportions are averaged across other predictors included in Table A3.4.

| Activity | New Activity (Yes/No) | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Mountain biking | No | 9% | 2% | a |
| | Yes | 14% | 2% | b |
| Cycling | No | 15% | 2% | a |
| | Yes | 20% | 2% | b |
| Running | No | 6% | 1% | a |
| | Yes | 7% | 1% | a |
| Walking | No | 12% | 2% | a |
| | Yes | 14% | 2% | a |
| Archery | Yes | 0.0% | 7% | a |
| | No | 0.1% | 13% | b |

Table A3.8. Statistical analysis of significant factors driving activities undertaken by individuals completing the Participant Survey: post hoc tests for accompanied by under 16s (yes/no). Estimated proportions are averaged across other predictors included in Table A3.4.

| Activity | Accompanied by under 16 (Yes/No) | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Mountain biking | No | 13% | 2% | b |
| | Yes | 9% | 1% | a |
| Cycling | No | 14% | 2% | a |
| | Yes | 23% | 2% | b |
| Running | No | 10% | 1% | b |
| | Yes | 4% | 1% | a |
| Walking | No | 11% | 1% | a |
| | Yes | 15% | 2% | b |
| Archery | No | 0.0% | 8% | a |
| | Yes | 0.1% | 11% | a |

Table A3.9. Statistical analysis of significant factors driving activities undertaken by individuals completing the Participant Survey: post hoc tests for forest site. Estimated proportions are averaged across other predictors included in Table A3.4.

| Activity | Forest Site | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Mountain biking | Delamere | 3% | 1% | a |
| | Dalby | 7% | 1% | ab |
| | Sherwood | 10% | 2% | bc |
| | High Lodge | 10% | 2% | bc |
| | Other Forest | 11% | 3% | bc |
| | Bedgebury | 14% | 2% | c |
| | Cannock | 40% | 5% | d |
| Cycling | Delamere | 5% | 2% | a |
| | Dalby | 13% | 2% | ab |
| | Other Forest | 15% | 4% | abcd |
| | Sherwood | 22% | 3% | bc |
| | Cannock | 23% | 3% | bcd |
| | Bedgebury | 28% | 3% | cd |
| | High Lodge | 32% | 3% | d |
| Running | Cannock | 0% | 0% | a |
| | High Lodge | 4% | 1% | b |
| | Other Forest | 5% | 2% | bc |
| | Bedgebury | 8% | 1% | c |
| | Sherwood | 10% | 2% | c |
| | Dalby | 23% | 3% | d |
| | Delamere | 25% | 4% | d |
| Walking | High Lodge | 7% | 1% | a |
| | Delamere | 11% | 3% | ab |
| | Cannock | 12% | 3% | ab |
| | Sherwood | 14% | 2% | b |
| | Dalby | 15% | 3% | b |
| | Bedgebury | 16% | 2% | b |
| | Other Forest | 18% | 5% | ab |
| Archery | Dalby | 0% | 0% | ab |
| | Cannock | 0% | 0% | ab |
| | Sherwood | 2% | 1% | a |
| | Other Forest | 4% | 3% | ab |
| | Bedgebury | 8% | 2% | ab |
| | High Lodge | 10% | 2% | b |
| | Delamere | 11% | 3% | b |

Table A3.10. Statistical analysis of significant factors driving marketing received by individuals completing the Participant Survey

| Predictor | Likelihood Ratio $\chi^2$ Test Statistic | DF | p |
|---|---|---|---|
| Age Category | 74.592 | 25 | **<0.001** |
| New Activity (Yes/No) | 23.267 | 5 | **<0.001** |
| Forest Site | 117.488 | 30 | **<0.001** |

Table A3.11. Statistical analysis of significant factors driving marketing received by individuals completing the Participant Survey: post hoc tests by age. Estimated proportions are averaged across other predictors included in Table A3.10.

| Marketing | Age | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| From a friend (n = 848) | 65 yrs and over | 24% | 5% | a |
| | 45-55 yrs | 32% | 2% | ab |
| | 55-64 yrs | 35% | 4% | abc |
| | 35-44 yrs | 38% | 2% | abc |
| | 16-25 yrs | 42% | 3% | bc |
| | 26-34 yrs | 43% | 3% | c |
| Other (n = 641) | 26-34 yrs | 18% | 2% | a |
| | 55-64 yrs | 20% | 3% | ab |
| | 16-25 yrs | 25% | 3% | abc |
| | 35-44 yrs | 26% | 2% | bc |
| | 45-55 yrs | 29% | 2% | bc |
| | 65 yrs and over | 39% | 6% | c |
| Website (n = 379) | 16-25 yrs | 14% | 3% | a |
| | 65 yrs and over | 18% | 5% | ab |
| | 35-44 yrs | 20% | 2% | ab |
| | 26-34 yrs | 20% | 2% | ab |
| | 45-55 yrs | 21% | 2% | ab |
| | 55-64 yrs | 27% | 3% | b |
| Social Media (n = 220) | 65 yrs and over | 6% | 3% | a |
| | 55-64 yrs | 8% | 2% | a |
| | 45-55 yrs | 11% | 2% | a |
| | 35-44 yrs | 13% | 2% | a |
| | 26-34 yrs | 13% | 2% | a |
| | 16-25 yrs | 14% | 2% | a |
| Leaflet/Poster (n = 93) | 35-44 yrs | 4% | 1% | a |
| | 16-25 yrs | 4% | 1% | a |
| | 26-34 yrs | 4% | 1% | a |
| | 45-55 yrs | 6% | 1% | a |
| | 55-64 yrs | 7% | 2% | a |
| | 65 yrs and over | 8% | 3% | a |
| TV/Newspaper/Radio (n = 24) | 35-44 yrs | 0% | 0% | a |
| | 16-25 yrs | 1% | 1% | a |
| | 45-55 yrs | 2% | 1% | a |
| | 55-64 yrs | 2% | 1% | a |
| | 26-34 yrs | 3% | 1% | a |
| | 65 yrs and over | 5% | 3% | a |

Table A3.12. Statistical analysis of significant factors driving marketing received by individuals completing the Participant Survey: post hoc tests by new activity (yes/no). Estimated proportions are averaged across other predictors included in Table A3.10.

| Marketing | New Activity (Yes/No) | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| From a friend (n = 848) | No | 34% | 3% | a |
| | Yes | 37% | 1% | a |
| Other (n = 641) | No | 22% | 2% | a |
| | Yes | 30% | 2% | b |
| Website (n = 379) | Yes | 18% | 1% | a |
| | No | 22% | 2% | a |
| Social Media (n = 220) | Yes | 8% | 1% | a |
| | No | 13% | 2% | b |
| Leaflet/Poster (n = 93) | Yes | 5% | 1% | a |
| | No | 6% | 1% | a |
| TV/Newspaper/Radio (n = 24) | Yes | 1% | 0% | a |
| | No | 3% | 1% | a |

Table A3.13. Statistical analysis of significant factors driving marketing received by individuals completing the Participant Survey: post hoc tests by forest site. Estimated proportions are averaged across other predictors included in Table A3.10.

| Marketing | Forest Site | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| From a friend (n = 848) | Other Forest | 25% | 5% | a |
| | Sherwood | 32% | 3% | ab |
| | High Lodge | 34% | 2% | ab |
| | Delamere | 37% | 3% | ab |
| | Bedgebury | 38% | 3% | ab |
| | Dalby | 41% | 3% | ab |
| | Cannock | 43% | 3% | b |
| Other (n = 641) | Dalby | 19% | 2% | a |
| | Other Forest | 22% | 4% | abc |
| | Delamere | 22% | 3% | ab |
| | Sherwood | 24% | 2% | ab |
| | Cannock | 29% | 3% | abc |
| | Bedgebury | 31% | 2% | bc |
| | High Lodge | 34% | 2% | c |
| Website (n = 379) | Dalby | 13% | 2% | a |
| | High Lodge | 17% | 2% | a |
| | Cannock | 17% | 3% | ab |
| | Delamere | 18% | 3% | ab |
| | Bedgebury | 19% | 2% | ab |
| | Sherwood | 22% | 2% | ab |
| | Other Forest | 35% | 5% | b |
| Social Media (n = 220) | Bedgebury | 6% | 1% | a |
| | High Lodge | 7% | 1% | a |
| | Cannock | 8% | 2% | a |
| | Other Forest | 10% | 3% | ab |
| | Delamere | 12% | 2% | ab |
| | Sherwood | 16% | 2% | b |
| | Dalby | 18% | 2% | b |
| Leaflet/Poster (n = 93) | Cannock | 3% | 1% | a |
| | Sherwood | 4% | 1% | a |
| | Bedgebury | 4% | 1% | a |
| | Dalby | 6% | 2% | a |
| | High Lodge | 6% | 1% | a |
| | Delamere | 7% | 2% | a |
| | Other Forest | 7% | 3% | a |
| Newspaper/Radio (n = 24) | Cannock TV/N | 0% | 0% | a |
| | Bedgebury TV/N | 1% | 1% | a |
| | High Lodge TV/N | 1% | 1% | a |
| | Sherwood TV/N | 2% | 1% | a |
| | Other Forest TV/N | 2% | 2% | a |
| | Dalby TV/N | 3% | 1% | a |
| | Delamere TV/N | 5% | 2% | a |

Table A3.14. Statistical analysis of significant factors driving new activities undertaken by individuals completing the Participant Survey

| Predictor | Likelihood Ratio $\chi^2$ Test Statistic | DF | p |
|---|---|---|---|
| **Activity (top 10)** | **116** | **10** | **<0.001** |
| **Forest Site** | **24.3** | **6** | **<0.001** |
| **Frequency of Activity** | **23.8** | **4** | **<0.001** |
| **Age Category** | **16.7** | **5** | **0.005** |
| Accompanied by under 16 (Yes/No) | 0.4 | 1 | 0.537 |

Table A3.15. Statistical analysis of significant factors driving new activities undertaken by individuals completing the Participant Survey: post hoc tests. Estimated proportions are averaged across other predictors included in Table A3.14.

| Predictor | Predictor value | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Activity | Nordic walking | 35% | 9% | a |
| | Duathlon | 64% | 10% | abcd |
| | Other | 64% | 4% | ab |
| | Orienteering | 68% | 11% | abcde |
| | Archery | 71% | 5% | abc |
| | Fitness | 75% | 7% | bcd |
| | Running | 82% | 3% | cd |
| | Table tennis | 83% | 6% | bcde |
| | Cycling | 85% | 2% | cde |
| | Mountain biking | 88% | 2% | de |
| | Walking | 94% | 2% | e |
| Activity Frequency | Less than once a month | 66% | 5% | a |
| | Not in the last six months | 71% | 6% | ab |
| | At least once a month | 78% | 3% | ab |
| | At least once a week | 80% | 2% | b |
| | More than once a week | 84% | 2% | b |
| Age | 16-25 yrs | 68% | 4% | a |
| | 26-34 yrs | 73% | 3% | ab |
| | 65 yrs and over | 74% | 6% | ab |
| | 35-44 yrs | 79% | 3% | ab |
| | 55-64 yrs | 81% | 4% | ab |
| | 45-55 yrs | 81% | 3% | b |
| Forest | Dalby | 67% | 4% | a |
| | High Lodge | 69% | 4% | a |
| | Bedgebury | 70% | 4% | a |
| | Delamere | 73% | 4% | ab |
| | Sherwood | 75% | 3% | ab |
| | Other Forest | 86% | 5% | ab |
| | Cannock | 87% | 4% | b |

Table A3.16. Statistical analysis of significant factors driving future activities undertaken by individuals completing the Participant Survey.

| Future Activity | Predictor | Likelihood Ratio $\chi^2$ Test Statistic | DF | p |
|---|---|---|---|---|
| Future Other (n = 1219) | Forest Site | 62.62 | 6 | **p<0.001** |
| | Age Category | 9.19 | 5 | 0.102 |
| | Accompanied by under 16 (Yes, | 2.30 | 1 | 0.129 |
| | Frequency of Activity | 2.23 | 4 | 0.694 |
| | New Activity (Yes/No) | 1.24 | 1 | 0.266 |
| Future Cycling (n = 920) | Frequency of Activity | 24.86 | 4 | **p<0.001** |
| | Forest Site | 12.22 | 6 | 0.057 |
| | Age Category | 10.15 | 5 | 0.071 |
| | Accompanied by under 16 (Yes, | 1.64 | 1 | 0.200 |
| | New Activity (Yes/No) | 0.03 | 1 | 0.852 |
| Future Running (n = 650) | Frequency of Activity | 54.44 | 4 | **p<0.001** |
| | Age Category | 33.82 | 5 | **p<0.001** |
| | Forest Site | 9.28 | 6 | 0.159 |
| | Accompanied by under 16 (Yes, | 0.92 | 1 | 0.339 |
| | New Activity (Yes/No) | 0.00 | 1 | 0.997 |
| Future Orienteering (n = 545) | Frequency of Activity | 17.69 | 4 | **0.001** |
| | Forest Site | 17.01 | 6 | **0.009** |
| | Age Category | 8.16 | 5 | 0.148 |
| | Accompanied by under 16 (Yes, | 7.79 | 1 | **0.005** |
| | New Activity (Yes/No) | 5.02 | 1 | **0.025** |
| Future Fitness (n = 536) | Frequency of Activity | 35.98 | 4 | **p<0.001** |
| | Age Category | 32.67 | 5 | **p<0.001** |
| | Forest Site | 22.39 | 6 | **0.001** |
| | Accompanied by under 16 (Yes, | 1.29 | 1 | 0.256 |
| | New Activity (Yes/No) | 0.00 | 1 | 0.982 |
| Future Archery (n = 493) | Forest Site | 41.65 | 6 | **p<0.001** |
| | Age Category | 17.77 | 5 | **0.003** |
| | Accompanied by under 16 (Yes, | 17.02 | 1 | **p<0.001** |
| | Frequency of Activity | 9.12 | 4 | 0.058 |
| | New Activity (Yes/No) | 0.05 | 1 | 0.817 |
| Future Walking (n = 310) | Age Category | 15.35 | 5 | **0.009** |
| | Frequency of Activity | 8.07 | 4 | 0.089 |
| | Forest Site | 6.69 | 6 | 0.350 |
| | New Activity (Yes/No) | 0.97 | 1 | 0.324 |
| | Accompanied by under 16 (Yes, | 0.15 | 1 | 0.698 |
| Future Mountain biking (n=281) | Forest Site | 160.28 | 6 | **p<0.001** |
| | Frequency of Activity | 11.15 | 4 | **0.025** |
| | New Activity (Yes/No) | 9.06 | 1 | **0.003** |
| | Age Category | 8.95 | 5 | 0.111 |
| | Accompanied by under 16 (Yes, | 1.06 | 1 | 0.303 |
| Future Nordic walking (n = 226) | Age Category | 14.70 | 5 | **0.012** |
| | Frequency of Activity | 6.96 | 4 | 0.138 |
| | Forest Site | 3.07 | 6 | 0.800 |
| | New Activity (Yes/No) | 2.02 | 1 | 0.156 |
| | Accompanied by under 16 (Yes, | 0.20 | 1 | 0.653 |
| Future Table Tennis (n = 132) | Forest Site | 33.19 | 6 | **p<0.001** |
| | Age Category | 29.40 | 5 | **p<0.001** |
| | Accompanied by under 16 (Yes, | 20.05 | 1 | **p<0.001** |
| | Frequency of Activity | 7.60 | 4 | 0.107 |
| | New Activity (Yes/No) | 0.00 | 1 | 0.951 |

Table A3.17. Statistical analysis of significant factors driving future activities undertaken by individuals completing the Participant Survey: post hoc tests by frequency of activity. Estimated proportions are averaged across other predictors included in Table A3.16.

| Future Activity | Activity Frequency | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Future Other (n = 1219) | Less than once a month | 6% | 2% | a |
| | At least once a month | 7% | 2% | a |
| | Not in the last six months | 7% | 3% | a |
| | At least once a week | 8% | 1% | a |
| | More than once a week | 11% | 2% | a |
| Future Cycling (n = 920) | Less than once a month | 23% | 4% | a |
| | Not in the last six months | 28% | 5% | ab |
| | At least once a month | 39% | 3% | b |
| | At least once a week | 39% | 3% | b |
| | More than once a week | 43% | 2% | b |
| Future Running (n = 650) | Not in the last six months | 9% | 3% | a |
| | Less than once a month | 11% | 3% | a |
| | At least once a month | 21% | 3% | ab |
| | At least once a week | 24% | 2% | b |
| | More than once a week | 32% | 2% | c |
| Future Orienteering (n = 545) | Not in the last six months | 9% | 3% | a |
| | At least once a week | 14% | 2% | a |
| | Less than once a month | 16% | 4% | a |
| | More than once a week | 16% | 2% | a |
| | At least once a month | 20% | 3% | a |
| Future Fitness (n = 536) | Less than once a month | 19% | 4% | ab |
| | More than once a week | 19% | 2% | a |
| | At least once a week | 20% | 2% | ab |
| | Not in the last six months | 21% | 5% | ab |
| | At least once a month | 27% | 3% | b |
| Future Archery (n = 493) | Less than once a month | 10% | 3% | a |
| | Not in the last six months | 11% | 4% | ab |
| | At least once a month | 18% | 2% | ab |
| | At least once a week | 22% | 2% | bc |
| | More than once a week | 27% | 2% | c |
| Future Walking (n = 310) | Not in the last six months | 1% | 1% | a |
| | At least once a week | 3% | 1% | a |
| | At least once a month | 4% | 1% | a |
| | More than once a week | 5% | 1% | a |
| | Less than once a month | 5% | 2% | a |
| Future Mountain biking (n=281) | Not in the last six months | 6% | 3% | a |
| | At least once a week | 9% | 1% | a |
| | More than once a week | 10% | 1% | a |
| | Less than once a month | 13% | 3% | a |
| | At least once a month | 14% | 2% | a |
| Future Nordic walking (n = 226) | Not in the last six months | 11% | 4% | a |
| | Less than once a month | 14% | 3% | a |
| | More than once a week | 24% | 2% | ab |
| | At least once a week | 25% | 2% | ab |
| | At least once a month | 29% | 3% | b |
| Future Table Tennis (n = 132) | Not in the last six months | 49% | 6% | a |
| | At least once a month | 53% | 3% | a |
| | At least once a week | 54% | 3% | a |
| | Less than once a month | 54% | 5% | a |
| | More than once a week | 56% | 2% | a |

Table A3.18. Statistical analysis of significant factors driving future activities undertaken by individuals completing the Participant Survey: post hoc tests by age. Estimated proportions are averaged across other predictors included in Table A3.16.

| Future Activity | Age | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Future Mountain biking (n=281) | 26-34 yrs | 6% | 1% | a |
| | 65 yrs and over | 6% | 2% | a |
| | 45-55 yrs | 7% | 1% | a |
| | 35-44 yrs | 9% | 1% | a |
| | 16-25 yrs | 10% | 2% | a |
| | 55-64 yrs | 10% | 2% | a |
| Future Cycling (n = 920) | 65 yrs and over | 23% | 5% | a |
| | 55-64 yrs | 34% | 4% | a |
| | 45-55 yrs | 34% | 3% | a |
| | 26-34 yrs | 38% | 3% | a |
| | 16-25 yrs | 38% | 4% | a |
| | 35-44 yrs | 38% | 3% | a |
| Future Running (n = 650) | 65 yrs and over | 9% | 3% | a |
| | 55-64 yrs | 12% | 2% | a |
| | 45-55 yrs | 19% | 2% | ab |
| | 35-44 yrs | 23% | 2% | b |
| | 16-25 yrs | 24% | 3% | b |
| | 26-34 yrs | 25% | 3% | b |
| Future Walking (n = 310) | 16-25 yrs | 10% | 2% | a |
| | 35-44 yrs | 12% | 2% | a |
| | 26-34 yrs | 14% | 2% | ab |
| | 45-55 yrs | 14% | 2% | ab |
| | 65 yrs and over | 19% | 5% | ab |
| | 55-64 yrs | 22% | 4% | b |
| Future Archery (n = 493) | 55-64 yrs | 14% | 3% | a |
| | 65 yrs and over | 17% | 5% | ab |
| | 35-44 yrs | 22% | 2% | ab |
| | 45-55 yrs | 22% | 2% | ab |
| | 26-34 yrs | 25% | 3% | ab |
| | 16-25 yrs | 30% | 4% | b |
| Future Fitness (n = 536) | 65 yrs and over | 12% | 3% | ab |
| | 55-64 yrs | 12% | 2% | a |
| | 45-55 yrs | 14% | 2% | a |
| | 35-44 yrs | 19% | 2% | ab |
| | 26-34 yrs | 22% | 3% | b |
| | 16-25 yrs | 26% | 3% | b |
| Future Table Tennis (n = 132) | 65 yrs and over | 1% | 1% | ab |
| | 35-44 yrs | 2% | 1% | a |
| | 45-55 yrs | 3% | 1% | a |
| | 55-64 yrs | 4% | 1% | ab |
| | 26-34 yrs | 4% | 1% | ab |
| | 16-25 yrs | 8% | 2% | b |
| Future Nordic walking (n = 226) | 16-25 yrs | 6% | 2% | a |
| | 35-44 yrs | 8% | 1% | a |
| | 45-55 yrs | 9% | 2% | a |
| | 26-34 yrs | 10% | 2% | a |
| | 55-64 yrs | 15% | 3% | a |
| | 65 yrs and over | 16% | 5% | a |
| Future Orienteering (n = 545) | 65 yrs and over | 16% | 4% | a |
| | 55-64 yrs | 16% | 3% | a |
| | 45-55 yrs | 21% | 2% | a |
| | 35-44 yrs | 21% | 2% | a |
| | 26-34 yrs | 21% | 3% | a |
| | 16-25 yrs | 26% | 3% | a |
| Future Other (n = 1219) | 65 yrs and over | 47% | 6% | a |
| | 45-55 yrs | 50% | 3% | a |
| | 55-64 yrs | 52% | 4% | a |
| | 35-44 yrs | 54% | 3% | a |
| | 26-34 yrs | 56% | 3% | a |
| | 16-25 yrs | 60% | 4% | a |

Table A3.19. Statistical analysis of significant factors driving future activities undertaken by individuals completing the Participant Survey: post hoc tests by new activity (yes/no). Estimated proportions are averaged across other predictors included in Table A3.16.

| Future Activity | New Activity (Yes/No) | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Future Mountain biking (n=281) | Yes | 6% | 1% | a |
| | No | 10% | 2% | b |
| Future Cycling (n = 920) | No | 34% | 3% | a |
| | Yes | 34% | 2% | a |
| Future Running (n = 650) | Yes | 18% | 2% | a |
| | No | 18% | 2% | a |
| Future Walking (n = 310) | Yes | 14% | 2% | a |
| | No | 16% | 2% | a |
| Future Archery (n = 493) | No | 21% | 2% | a |
| | Yes | 21% | 2% | a |
| Future Fitness (n = 536) | No | 17% | 2% | a |
| | Yes | 17% | 2% | a |
| Future Table Tennis (n = 132) | No | 3% | 1% | a |
| | Yes | 3% | 1% | a |
| Future Nordic walking (n = 226) | No | 9% | 2% | a |
| | Yes | 11% | 2% | a |
| Future Orienteering (n = 545) | No | 17% | 2% | a |
| | Yes | 22% | 2% | b |
| Future Other (n = 1219) | Yes | 51% | 2% | a |
| | No | 55% | 3% | a |

Table A3.20. Statistical analysis of significant factors driving future activities undertaken by individuals completing the Participant Survey: post hoc tests by accompanied by under 16 (yes/no). Estimated proportions are averaged across other predictors included in Table A3.16.

| Future Activity | Accompanied by under 16 (Yes/No) | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Future Mountain biking (n=281) | Yes | 7% | 1% | a |
| | No | 8% | 1% | a |
| Future Cycling (n = 920) | No | 33% | 2% | a |
| | Yes | 35% | 3% | a |
| Future Running (n = 650) | No | 17% | 2% | a |
| | Yes | 18% | 2% | a |
| Future Walking (n = 310) | No | 14% | 2% | a |
| | Yes | 15% | 2% | a |
| Future Archery (n = 493) | No | 17% | 2% | a |
| | Yes | 25% | 3% | b |
| Future Fitness (n = 536) | Yes | 16% | 2% | a |
| | No | 18% | 2% | a |
| Future Table Tennis (n = 132) | No | 2% | 1% | a |
| | Yes | 5% | 1% | b |
| Future Nordic walking (n = 226) | No | 10% | 1% | a |
| | Yes | 10% | 2% | a |
| Future Orienteering (n = 545) | No | 17% | 2% | a |
| | Yes | 22% | 2% | b |
| Future Other (n = 1219) | No | 51% | 2% | a |
| | Yes | 55% | 3% | a |

Table A3.21. Statistical analysis of significant factors driving future activities undertaken by individuals completing the Participant Survey: post hoc tests by forest site. Estimated proportions are averaged across other predictors included in Table A3.16.

| Future Activity | Forest Site | Estimated proportion of people | SE | Significance grouping |
|---|---|---|---|---|
| Future Mountain biking (n=281) | Cannock | 2% | 1% | a |
| | Other Forest | 5% | 2% | ab |
| | Sherwood | 6% | 1% | a |
| | Bedgebury | 6% | 1% | a |
| | Delamere | 8% | 2% | a |
| | High Lodge | 19% | 2% | b |
| Future Cycling (n = 920) | Dalby | 28% | 3% | a |
| | Delamere | 29% | 3% | a |
| | Bedgebury | 32% | 3% | a |
| | Sherwood | 34% | 3% | a |
| | High Lodge | 36% | 3% | a |
| | Cannock | 38% | 4% | a |
| Future Running (n = 650) | Cannock | 13% | 2% | a |
| | Bedgebury | 17% | 2% | a |
| | Sherwood | 17% | 2% | a |
| | High Lodge | 17% | 2% | a |
| | Dalby | 19% | 3% | a |
| | Other Forest | 21% | 4% | a |
| Future Walking (n = 310) | Cannock | 12% | 3% | a |
| | High Lodge | 13% | 2% | a |
| | Delamere | 14% | 3% | a |
| | Dalby | 14% | 2% | a |
| | Sherwood | 15% | 2% | a |
| | Other Forest | 17% | 4% | a |
| Future Archery (n = 493) | Dalby | 12% | 2% | a |
| | Delamere | 18% | 3% | ab |
| | Bedgebury | 20% | 2% | ab |
| | Cannock | 22% | 3% | abc |
| | Other Forest | 23% | 5% | abc |
| | Sherwood | 26% | 3% | bc |
| Future Fitness (n = 536) | Cannock | 11% | 2% | a |
| | Sherwood | 15% | 2% | a |
| | High Lodge | 15% | 2% | a |
| | Dalby | 16% | 2% | ab |
| | Bedgebury | 18% | 2% | ab |
| | Other Forest | 21% | 4% | ab |
| Future Table Tennis (n = 132) | Cannock | 2% | 1% | a |
| | Dalby | 2% | 1% | a |
| | Other Forest | 2% | 1% | ab |
| | Delamere | 3% | 1% | ab |
| | Sherwood | 4% | 1% | ab |
| | Bedgebury | 4% | 1% | ab |
| Future Nordic walking (n = 226) | Dalby | 9% | 2% | a |
| | High Lodge | 9% | 2% | a |
| | Delamere | 9% | 2% | a |
| | Cannock | 9% | 2% | a |
| | Bedgebury | 11% | 2% | a |
| | Sherwood | 11% | 2% | a |
| Future Orienteering (n = 545) | Dalby | 15% | 2% | a |
| | Bedgebury | 17% | 2% | a |
| | Cannock | 18% | 3% | a |
| | Sherwood | 18% | 2% | a |
| | High Lodge | 19% | 2% | a |
| | Delamere | 21% | 3% | ab |
| Future Other (n = 1219) | Cannock | 43% | 4% | a |
| | Other Forest | 50% | 6% | ab |
| | Bedgebury | 50% | 3% | ab |
| | Delamere | 50% | 4% | ab |
| | Sherwood | 52% | 3% | ab |
| | Dalby | 56% | 3% | b |

# Appendix 4. Qualitative 2 page summaries of focus groups and interviews

These two page summaries can also be found on the Forest Research website: https://www.forestry.gov.uk/fr/beeh-a3hmkm

Forest Research Active Forest Programme

## Walton Chasers Orienteering Club: Cannock Chase

As part of the Forestry Commission England and Sport England 'Active Forest' programme evaluation a meeting was set up with members of the Walton Chasers Orienteering Club at Cannock Chase Forest. The researcher joined the club at one of its weekly running sessions and afterwards at the social event in a local pub. The researcher was able to talk to 14 members (10 men and 4 women) of the club ranging from 13 to 80 years of age.

### Motivations

Motivations to participate in orienteering were to undertake a challenge, test the ability to navigate and concentrate, be competitive and due to a love of maps. Participants started orienteering via school, university, because of parents and in order to improve navigation skills.

### Benefits – challenge, camaraderie and transferable skills

Benefits included the physical and mental challenges associated with orienteering; it was seen as de-stressing and as a sport for all ages. The skills developed while undertaking orienteering were felt to be transferable life skills including problem solving and teaching self-reliance and this could lead to greater confidence. It was also viewed as quite a technical sport with a good variety of options in terms of physically long or short runs combined with technically difficult or easier routes. There are also newer options such as urban orienteering and mountain bike orienteering. The variety allows opportunities for progression as well as for reducing difficulty if needed when members get older.

**Benefits of orienteering**

*'It's challenging every time, it is not something that is repeated; the challenge is to do something different every time'.*

*'I like the physical and mental challenge'*
*'It's fantastic for mental work and you have to concentrate for long periods of time'.*
*'One of the guys daughters came along to a training evening years ago and did a blood pressure test on us before we went out and when we came back, and it dropped for everyone'.*

**Social connections**

*'We have just made friends up and down the country... when I moved job* [from one part of the country to another] *I started work on the Monday and on the Tuesday went to this club and straight away I had a group of friends'.*
*'It's a family sport you can all have a go, it's not just watching dad or mum run'.*
*'Orienteering is a great family sport, my children got involved from the age of 8. My son is now 50 and still does it and my daughter and their children do it as well'.*

Forest Research Active Forest Programme

**Club challenges**

*'The club is totally volunteers, the age profile is getting older, we have a really good junior section but lose some teenagers going off to university'.*

*'Unless orienteering is very local you have to travel and that is where it gets pricey and difficult, you have to get the parents involved* [for youth participation]*'*

*'The biggest challenge is juniors and getting them involved, schools is probably the best route but you need enthusiastic teachers'.*

*'We have been running on the Chase for 50 years but we've never had so much difficulty of getting permission to carry on'. It seems that every now and then we have a new regime and we have to start again and convince people we are not going to destroy the ecosystem'.*

## Volunteers run the club

The club is run by volunteers all of whom take on different roles and play a very important part in the continuation of the club. Having a core pool of volunteers was seen as essential, with three major roles needed for events the club organises – planner, organiser, controller – and a team of people to help these individuals. It is a sport where a high proportion of people are competing in events and where the majority of participants volunteer to help out with activities such as putting out and gathering in controls, creating maps, timing, car parking etc. This means being involved takes time and you need to travel to compete. Members of the club have in recent times been to Scandinavia, Wales, Scotland as well as taking part in urban orienteering in Venice, Porto, Paris and Brussels. However, there are a number of challenges the club faces as outlined above.

## Activity in the forest environment

Running in the forest provides variety and varying terrain, and orienteering can take members to parts of the Chase they have not been to before. Participants have seen a variety of wildlife in the various forests they have run in, including snakes, capercaillie, and wild boar.

> *'The wonderful thing about the chase is… it's such a great place we really appreciate it'*
>
> *'I went down a path to a lake and mist was coming off the lake and I thought I've never been here'*
>
> *I like being out in the woods you get amazing wildlife, you get birds, deer'.*

Orienteering was felt to be accessible for a very wide age range with official orienteering age classes running from 10 to 90 years of age.

Members were passionate about the sport; some had been in the club for decades (the club president has been a member for 45 years) and were very keen to get more juniors involved to ensure long term continuation.

| |
|---|
| **For further information contact:** liz.obrien@forestry.gsi.gov.uk |
| **Funding:** Sport England and Forestry Commission England |
| **Website:** http://www.forestry.gov.uk/fr/BEEH-A3HMKM and to find out more about Walton Chasers go to http://www.walton-chasers.co.uk/ |

August 2016

Forest Research Active Forest Programme

## 'parkrun' Focus Group: Sherwood Pines Forest

As part of the Forestry Commission England and Sport England 'Active Forest' programme a focus group was set up with participants attending a 'parkrun' event at Sherwood Pines Forest. 'parkrun' organise weekly 5km timed runs around the world. This was a new activity for Sherwood Pines and started on site in October 2015. Ten women and three men participated in the focus group. Three participants were aged 16-34; nine were 35-54, with one person 55-64. Some of the group were already active however, three had never run before starting a 'parkrun' session, and two of them started their first run at Sherwood.


### Motivations

Motivations to participate were to get fit, lose weight, be healthier and feel better. One participant also mentioned heart disease within the family as a motivation for getting fitter, while another felt that a mid life crisis led to her wanting to do things differently and challenge herself more.

### Benefits - Social connections and a sense of community

Three of the thirteen participants were undertaking the run with their children; one family was running with all three of their children as well as the brother of one of the parents. Another woman had been running with her daughter (aged 6) at 'parkrun' events for over a year. Being and doing something together as a family was viewed as especially important. Participants talked about a sense of community engendered through getting involved in 'parkrun'. A number went to the café at Sherwood Pines after the run to chat and catch up.

**Benefits of running**

*'It makes me feel better, both physically and mentally, especially in this environment because it's so nice and every time you do the run you see something different'.*

*'I love the feeling of it* [running]'.

*'My daughter* [aged 6] *gets a real sense of accomplishment from it. We used to say she'd get a pound for every run. But she's never bothered as she gets personal bests and medals'.*

**Engaging families**

*'It's amazing* [parkrun] *and it's fantastic to see these families getting their young ones into it. I admire them so much'*

*'That's what inspired me* [seeing families run together] *my 8 year old is up for it, my daughter's four – not sure she'd make it round.*

*'We always go for a drink afterwards in the café, we try and make it a social and family activity as well'.*

Forest Research Active Forest Programme

**Changes in behaviour**

*'My first run was 12 weeks ago. It's made a massive, massive difference. I've lost one stone and nine pounds and I've come off anti-depressants. It just keeps me going. I come* [to parkrun] *with my niece, I never thought my niece would want to come out with me. So now we come every week and have aunty and niece time together'.*

*'I've always wanted to run, I just found with the asthma I couldn't run but then I thought I want to do it, I have to do it. I have had attacks but I've learnt from them, what to do and eat before a run'.*

*'I didn't start doing any fitness until I was thirty. I was three stone heavier than I am now, drank a lot and eat a lot. Since then I've been in and out of running'*

## Evidence of behaviour change

The quotes above provide evidence of considerable behaviour change; some of this was associated directly with 'parkrun' at Sherwood Pines while some was linked to other 'parkrun' events or the joining of a running club. One woman who had only started running recently joined a local running club and now ran four times a week. Another woman started because of a bad back:

> *'I had a really bad back, sometimes I couldn't even get out of bed. I went to the physio who said you need to help yourself and lose weight and start doing Pilates and other activity'*

Encouraging children to have active lifestyles and acting as a role model for children was one of the reasons to sustain 'parkrun' activity. Seeing evidence of progress such as a new personal best, receiving a t-shirt for doing a certain number of runs also encouraged participants to keep on with their running.

## Activity in the forest environment

One of the children enjoyed Sherwood Pines as *'it's got loads of turns and hills'.* Carrying out the run in a scenic setting was important as well as seeing how the site changed over the seasons. Participants also said running in the rain could be enjoyable.

> *'Here it's a nice atmosphere and the scenery is really great. It takes us 25 minutes to get here but it's a nice place to come'*

Participants' felt 'parkrun' at Sherwood Pines Forest was open and accessible for all whatever age, size or ability. The participation of families with children was seen as very positive and a good means of promoting active healthy lifestyles.

Participants had sometimes carried out a 'parkrun' at other nearby sites or had also found another 'parkrun' to participate in when they were on holiday.

| |
|---|
| **For further information contact:** liz.obrien@forestry.gsi.gov.uk |
| **Funding:** Sport England and Forestry Commission England |
| **Website:** http://www.forestry.gov.uk/fr/BEEH-A3HMKM and to find out about parkrun go to http://www.parkrun.org.uk/ |

February 2016

Forest Research Active Forest Programme

## Nordic Walking Focus Group: Delamere Forest

As part of the Forestry Commission England and Sport England 'Active Forest' programme a focus group with a Nordic Walking group was run at Delamere Forest. This group was new to recent regular sport and was a group the Forestry Commission had not engaged with at Delamere Forest before. Ten women and one man participated in the focus group, all were aged 55+. This was a group that were starting to become physically active again after not doing much for a number of years. They highlighted the benefits of undertaking physical activity in Delamere Forest.

### Motivations, benefits and behaviours

Motivations to participate were to keep fit and be mobile. The benefits included socialising with others in the group, fun and enjoyment, and getting fitter. They enjoyed Nordic Walking (NW) as it was seen as more physical than ordinary walking. One person noticed the strength in her legs improving. Sometimes the group would carrying on socialising and go for a coffee after their walk. Most knew Delamere Forest; some had brought their children to the site many years previously. They enjoyed walking in the forest due to the variety of paths which the NW leader took them along.

One of the women specifically changed behaviour by training as a NW leader and fills in when the main leader is on holiday. They all completed a NW beginner's course and the majority had purchased their own poles. They were sustaining their weekly NW and planned to continue attending as long as they could.

**Benefits**

*'It's more physical that just walking'*

*'I'd rather do it than be in the gym'*

*'It's fantastic for everything'*

*'You have like minded people so you talk a lot'*

*'You can go at your own pace your not pressured into doing anything'*

*'I thought I knew the forest but by ... there's so many paths we go on, it's absolutely wonderful'*

**Noticing changes'**

*'I feel that when I get back I want to keep going'*

*'Yes me to, when I get home I don't get changed I go out in the garden and do something – you're warmed up already'*

*'It's a good start to the week on a Monday morning'*

*'I've noticed strength in my legs has improved'*

Forest Research Active Forest Programme

**Benefits of doing physical activity in the forest**

*'Yes it's better in the forest, it would be boring otherwise. This is lovely, I think being in the forest it adds to the enjoyment'*

*'You can hear the birds'*

*'There are changes in the seasons, you are more observant of what is around you, you look and listen for things'*

*'There's no traffic either'*

*'You've got the challenge of uneven terrain and some hills and then level ground That's when you realise how good two poles are because it makes it so much easier walking with poles. You think oh god this is fantastic'*

## The independent activity provider and Active Forest Coordinator (AFC)

The NW instructor was trained by NW UK and runs training for those who have never carried out NW, and also provides a variety of classes for slower through to more advanced walkers. Providing a range of walks and options is important. The instructor chose to do the walks at Delamere Forest as it was '*ideal with mixed terrain without being too hilly'*. The instructor built up a client base little by little and focuses on recruitment and retention. In terms of publicity word of mouth was seen as most effective as well as email and facebook.

> '*I see myself doing this forever, its lovely and the people you meet are mostly lovely*' NW instructor.

The Forestry Commission AFC at Delamere already runs a fitness business in the forest and now works part time as AFC. The coordinator is interested in fitness for all and developing a variety of core activities and taster sessions to try new approaches. The aim is to try and target off peak activities away from busy weekends. The AFC has received feedback about how carrying out physical activity outdoors provides a sense of freedom after people have been cooped up indoors at work or at home.

Building relationships is of key importance - with participants, independent activity providers who are running activity sessions and with the rest of the Forestry Commission site staff.

Word of mouth and face to face engagement is important in how people find out about the activities on offer and also in building relationships with those mention above.

Using existing data and insight can help target appropriate groups at specific sites with relevant interesting activities and opportunities.

**For further information contact**: liz.obrien@forestry.gsi.gov.uk

**Funding**: Sport England and Forestry Commission England

**Website**: http://www.forestry.gov.uk/fr/BEEH-A3HMKM

February 2016

Forest Research Active Forest Programme

## 'GO TRI' Duathlon: Dalby Forest

As part of the Forestry Commission England and Sport England 'Active Forest' programme a researcher joined the GO TRI event at Dalby Forest in February to interview participants. The weather was snowy and very cold, yet 31 took part in the duathlon. The researcher spoke to 10 participants and 4 volunteers (9 men and 5 women). There was a strong sense of camaraderie and achievement from those who undertook the event in challenging weather conditions.

### Motivations

Participant's motivations for getting involved in GO TRI fell into four main categories: 1) taking up activity because of health reasons such as diabetes, 2) losing and also maintaining a reasonable weight, 3) maintaining or improving fitness and, 4) trying a new activity. Four of the men have not tried GO TRI before; one man cycled but had never run. They all wanted to try a new activity and the combination of a duathlon with running and cycling appealed to them.

### Active Lives

The way in which people engage with physical activity over their life can change. Two women talked about starting to get fitter once their children had grown up. A man and woman described how they had undertaken sport at school but this had dropped away after leaving, however they started to become active again in their late twenties. Health problems (some minor and others more serious) and the desire to try something new were important for half of the participants as they reached middle age.

### Benefits – Bringing people and families together

Most of the participants were doing the activity with friends or family, so socialising was considered important. A mother and daughter in-law got involved in various fitness activities together as part of their socialising, three men who were friends participated together to undertake a challenge and a couple who met through sport ran together.

**Benefits of GO TRI**

*'Its' nice to be part of a team and you get to meet like-minded people'.*
*'It's a good way of getting outside and meeting new people'.*
*'I've met my fella there who loves fitness and it's just great'.*
*'One thing I find with forestry is that it brings families back together'.*

**Active Life journeys**

*'I've got more into fitness in recent years,... as you get older it's about looking after yourself'.*
*'At Christmas we thought we would challenge ourselves a bit more'.*
*'When my youngest one was eighteen I decided to do stuff for myself'.*

Forest Research Active Forest Programme

**Changes in behaviour**
*'I used to be 21 stone, I was 46... I was walking with stick, I had a bad knee. The doctor.. basically said you need to lose weight. I lost 10.5 stone. I do exercise to keep my weight off and keep my fitness, I know it gives me endorphins and makes me feel fantastic'.*
*'I've never run in me life* [he does cycle] *we decided to do the no-ego head torch run a few weeks ago and said let's come back and do GO TRI'.*
*'We have been to Dalby before, it's a bit of a distance, we have done the Go-Ape and Segway. Today I was amazed and said let's come back and hire bikes and explore the forest cause it's beautiful, even today though it's snowing, windy and cold – I've really enjoyed myself'.*

Not all of the changes in behaviour were as a direct result of the GO TRI event, however it was clear that the Active Forest programme has provide people with opportunities to try new activities they had never undertaken before, such as running in the forest in the dark and to improve and maintain their physical activity levels.

## Activity in the forest environment

The enthusiasm of the participants for the forest environment, despite the snow and cold weather, was clear. Participants talked about enjoying the fresh air, beautiful scenery and seeing different wildlife including deer, badgers, owls, foxes and many birds. The facilities in the forest and reasonable cost of parking were also seen as important.

> *'Fresh air, we are all breathing all this oxygen and your outside and you get your heart going that bit faster than it normally does, and it's just great'.*

> *It's on my doorstep, I've been coming up here all my life. There's been a huge change* [in the forest], *but for the good I think it brings people in, the facilities up here now are brilliant and it's great, it gets people outside and that is not a bad thing'.*

> *'When they were little we used to bring them* [their children] *up here. Where else could you go for £48 that's for a year's membership? There is no way you can take a family out for that kind of money for a day!'.*

Four volunteers were helping to marshal the event, they also assisted with parkrun and the Halloween event held at Dalby. Their efforts were very much appreciated.

> *'Really if you're volunteering you're doing it for others, you shouldn't get anything, but the rewards and thanks* [from participants] *it's great'.*

The 'GO TRI' events are a social activity that provide interest and challenge to the participants, some of whom are friends and others are coming together as a family. Most had visited Dalby forest before and had tried a number of different types of activity. The volunteers make an important contribution and enjoy the connection to the different people they meet as part of their voluntary activity.

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February 2017

Forest Research Active Forest Programme

## 'Real Spin' Focus Group: Bedgebury Forest

As part of the Forestry Commission England and Sport England 'Active Forest' programme a focus group was run with participants attending a 'Real Spin' (mountain bike) session at Bedgebury Forest. Nine women attended the class which was run and guided by a member of Quench Cycles. Four women were aged 35-44, four were 45-54 and one was 55-64. Most of the women were reasonably active but many needed to fit activity around everyday life of work and children, which was not always easy.

### Motivations

Motivations to participate were to get out in the fresh air, the positive feeling participants got after a mountain bike ride, getting to know other people, catching up with friends and keeping healthy. Most of the women had been cycling at Bedgebury for between one to five years and tried to attend as often as they could. 'Real Spin' classes are available on Monday, Tuesday and Thursday and are run by Quench Cycles which provides bikes and helmets if required:

> *'I also love the fact that you can just come you don't have to worry about bringing your own bike'. 'That is a huge advantage because I used to bring my own bike but there is lifting it in and lifting it out of the car'.*

### Benefits

Gaining a sense of freedom was mentioned as important as well as acting as a role model for their children:

> *'My teenagers probably couldn't do some of the routes I do; for once they'll be like my goodness mum can you really do that?'*

**Benefits of Real Spin**
*'Yes definitely because it increases your ability to focus better as well. And it's good for dexterity as well as you having to navigate obstacles. Also the spatial awareness you get going through the trees'.*
*'There is also fresh air and getting out in the daylight because I suffer from Seasonal Affective Disorder in winter'.*

**Being a role model**
*'It's good for your children to see you going out and doing things, you get out of your comfort zone'*
*'My son started mountain biking at school 'cause he wanted to follow what I was doing'.*
*'I brought my daughter and she loved it'*

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**Changes in behaviour and skills**
*'if you were to ask the guides* [leading the rides] *what they would say is not just seeing changes in fitness but proficiency and confidence and the speed and tackling obstacles they* [the women] *might have been nervous about doing at the beginning'*
*'Well when you feel fitter you can do more, you have more energy to do more, even paper work'.*
*'It would be quite good to come with the family and now you know this run and that run; there are runs I can take the children down'.*

A key benefit identified was also stress relief with a session helping the women to leave behind worries, focus on their cycling and put things into perspective.

> *'If I get out, there is an immediate impact so it can help with day to day living and mental health.*
>
> *'I was recommended to do this by a physio as I have a really bad right knee and I was running but she said try cycling as it's low impact. I didn't imagine it was but it's been great'.*

The social benefits of carrying out an activity together were part of the motivation to join 'Real Spin' as well as the support for improving technique, support in case of accidents, and identification of a variety of paths to ride along:

> *'Sometimes you lose confidence when you fall off. But you have to get back on and you might be a bit nervous for a bit'*

## Activity in the forest environment

The women talked about seeing deer, flowers and *'amazing birds'* in the forest. Many had known Bedgebury for a number of years and viewed the changes made to the site in recent years positively, as the site had become more family friendly and has very good facilities:

> *'Yes definitely good changes because years ago it wasn't really for families it was just a big walk with lots of trees'.*

There was some concern expressed about the site sometimes becoming too busy in summer and the cost of car parking if someone was only visiting for a short period. The health benefits of cycling in the forest were considered important:

> *'They do say being in the forest environment that is better than any kind of cure you can get from the pharmacy'*

The 'Real Spin' sessions were a social activity that provided interest and challenge to the participants and an activity they could enjoy for themselves, while fitting it into everyday work and family life.

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