footprint ECOLOGY

Berry Head visitor survey
Summer 2016

Chris Panter & Sophie Lake

Forest Office
Cold Harbour
Wareham
Dorset BH20 7PA
Tel/Fax: 01929 552444
info@footprint-ecology.co.uk

connecting wildlife and people
www.footprint-ecology.co.uk

Footprint Contract Reference: 323
Date: 20/10/16
Version: Draft
Recommended Citation: Panter, C. & Lake S. Berry Head Visitor Survey, summer 2016. Footprint Ecology/Torbay Coast and Countryside Trust

Summary

A visitor survey was carried out in July and August 2016 to inform a habitat and visitor management plan for Berry Head in the light of future housing development in the area. Two hundred and sixty-six interviews were conducted during the eight days of survey work, and a tally kept of all people and dogs passing the surveyors.

Overall, 3,201 people (adults and minors) and 715 dogs were recorded entering or leaving the site by the surveyor during 64 hours of survey work (approximate to 400 people per day). A typical group consisted of two people per group, with half of all groups including a minor, and half including a dog. The largest groups were typically those on an outing with family or picnicking, while smaller groups/single individuals tended to be dog walking. The number of visitors recorded in August was over twice that recorded in July.

Interviewees who had travelled from home to Berry Head lived a median distance of 10.6km from the site (linear distance), with half of these living within 2.4km. The distance from home for those on holiday was a median distance of 256.8km. A car/van was the most common form or transport (62% of interviewees), with 36% arriving on foot.

Dog walking was the most common activity (41% of interviewees), closely followed by walking (31%). The next most common main activity was fishing (7.5%) then family outings (6.4%), with remaining interviewees carrying out any of a range of other main activities. In general, additional activities followed a similar pattern, although "visiting the café" was more common as an additional activity than a main activity. The majority of interviewees from Brixham were dog walking (77%), while the majority of those from elsewhere were walking (65%). 72% of dogs were off the lead.

Most interviewees (72%) visited Berry Head for between 30 minutes and two hours (the average duration was 1 hour 40 minutes) and the middle of the day was the most popular time to visit. Climbers spent the longest time on site (both of the two groups interviewed remained on site for more than 4 hours), while people fishing generally visited for 3-4 hours. The majority of dog walkers (58%) were on the site between 30 minutes and 1 hour.

The majority of visitors had visited the site at least once before, but a large minority (31%) were on their first visit to the site. Most interviewees (70%) who had visited more than once, visited equally all year round. Interviewees meeting up with friends or visiting the café were more likely to come in the spring and summer.

The most common reason given for why interviewees chose to visit Berry Head rather than another local site was the scenery and views (57% of interviewees). The second most common reason was that it was close to home (15.7%) (main reason only) or, if secondary reasons are included, "good for dog", a reflection of the high number of dog walkers interviewed. "Near the coast" was the second main reason given by walkers. Interviewees also gave a wide range of other reasons why they visited Berry Head.

The length of routes taken by interviewees varied between 0.5km and 4.3km (average 2.1 km), and was slightly shorter for those people interviewed at the main carpark as opposed to the northern

survey point. In general, interviewees on an outing with family walked the furthest and those meeting friends the shortest distances. Interviewees routes were mostly along the main paths to the headland and quarry, with large numbers also using the western area and the South Fort. The most common factor influencing choice of route was previous knowledge of the site, closely followed by a wide range of "other" reasons. However, there was some variation in this, particularly for those undertaking activities focussed at a specific location (climbing, fishing, meeting friends).

A large majority of interviewees (85%) said they would be willing to use an alternative route, although a smaller proportion of those visiting the café or fishing were unwilling to do so. In general, the key features that would attract interviewees to a new route were a natural, unsurfaced path and sea views.

Around half of interviewees said they also visited the nearby sites of Sharkham Point, Churston Cove and the Grove Woodland, and Broadsands. Of those who did not visit regularly, a substantial proportion (47%-60%) said that there were no improvements that could be made at these sites that would encourage them to visit more often. Around one in ten did not know the other sites, and a similar proportion felt that better interpretation and parking would help.

These findings are interpreted in the context of the 5km zone of influence for the site and future visitor management.

Contents

1. Introduction 7
2. Methods 8
Survey points 8
Tally counts 8
Interviews 8
3. Visitor Survey Results 9
Tally data 9
Differences between weekday and weekends 11
Differences between time periods 11
Data constraints 12
Interview data 12
Activities 14
Visit Duration 16
Visit Frequency 17
Timing of visit 18
Transport 19
Reasons for visiting this site 20
Nearby sites 23
Postcodes 25
Routes 27
Route density 27
Influences of route 33
Possible changes to routes 34
Interviewer observations 35
4. Discussion 37

Assessment of the 5km radius zone of influence 37

How visitors currently use the site 40

Influencing visitor behaviour in the future (zoning and exclusion zones) 40

Could other local sites be made more appealing to visitors? 40

Are visitors likely to be willing to change their route at Berry Head? 43

Is there potential to use zoning/limited access areas? 43

What is the best way of engaging with visitors to promote appropriate behaviour? 44

5. Appendix 1 44

6. Appendix 2 47

Churston Cove 47

Sharkham 47

Broadsands 48

7. Appendix 3 49

Acknowledgements

This report was commissioned by Alexis Huggins for the Torbay Coast and Countryside Trust. Thanks to Noel Hughes and staff at Berry Head for their support during the surveys and to Alexis and Noel for comments on the questionnaire. Fieldwork was undertaken by Doug Whyte and Chris Sadler, and John Underhill-Day commented on the text.

1. Introduction

1.1 It is likely that the level of housing growth proposed by the Torbay Local Plan[1] could increase recreational pressure on the Berry Head to Sharkham Point component of the South Hams SAC (Lake & Liley 2014). An approximate zone of influence within which new housing could result in increased recreation pressure on Berry Head was suggested to be approximately 5km, roughly equivalent to development in the SDB1 Brixham Peninsula policy area of the Torbay Local Plan. The potential for significant effects from additional visitors from new housing developments on the integrity of the European designated site cannot be ruled out and mitigation measures will be necessary.

1.2 Potential mitigation measures include:

- the development of a detailed management plan addressing habitat management and visitor use
- habitat management required to increase the resilience of the site over and above that already required to maintain the interest features of the site
- increased visitor engagement work
- management work at Sharkham Point to provide an alternative location for dog-walkers if visitor work suggests this may be effective.

1.3 Torbay Coast and Countryside Trust (TCCT) therefore commissioned a visitor survey to:

- understand how visitors currently use the site
- understand how visitor use could potentially be influenced in the future (e.g. through the use of zoning and creation of exclusion zones)
- enable confirmation of the zone of influence.

1.4 TCCT also commissioned a scrub management, visitor management and grazing plan based on the findings of the visitor surveys and other sources of information, and this plan accompanies this report.

[1] Torbay Council. Adopted Torbay Local Plan (December 2015) http://www.torbay.gov.uk/council/policies/planning-policies/local-plan/new-local-plan/

2. Methods

2.1 The visitor survey comprised eight days of on-site visitor interviews in July and August 2016 at two survey points on Berry Head on both week days and weekends.

Survey points

2.2 Two survey points were used. Survey point 1 was just beyond the main car park, at the path junction. Survey point 2 was near the picnic benches overlooking the northern shoreline, where the surfaced track curves right and descends down to the quarry floor (see Map 1).

Tally counts

2.3 Surveyors were stationed at agreed survey points and counted all visitors entering/leaving the site. This tally data provides basic information on the visitor flows (number of people, groups and dogs) passing each point.

2.4 Both weekday and weekend days were sampled. Survey effort was equally split between the two days and survey sessions were spread over the day (covering the periods 07:00-09:00; 10:00-12:00; 13:00-15:00; 17:00-19:00) ensuring coverage over the day while allowing the surveyor time to have comfort breaks etc.

2.5 Weather conditions during interviews were generally very good, with many warm sunny sessions. However some sessions in July were cloudier in the morning, and a single light shower was also noted[2]. This was compensated for by changing survey locations at midday, to average out the impact of mornings of bad weather. In August this was not an issue and therefore surveying was at a single location conducted for the whole day.

2.6 The surveys were conducted on 4 consecutive days in July and again in August, totalling 64 hours of surveying. Surveying effort was split equally between July and August, between weekday and weekend days, and between the two survey points. Surveys included a tally count of visitor and interviews with a sample of those visitors.

Interviews

2.7 A random sample of people passing were interviewed, with the random sample achieved through surveyors approaching the next person seen (if not already interviewing). No unaccompanied minors were approached or interviewed. Interviewers carried a name badge/photo ID and cards to give out in case members of the public wished to see identification or requested further information.

2.8 The questionnaire (Appendix 1) was hosted on tablets and designed using SNAP survey software (version 11).

[2] http://www.metoffice.gov.uk/climate/uk/summaries/2016/july

Map 1: Location of survey points at Berry Head

Contain Ordnance Survey Data © Crown copyright and Database Right 2015. Contains map data © OpenStreetMap contributors. Terms www.openstreetmap.org/copyright

3. Visitor Survey Results

Tally data

3.1 In total, 3,201 people (adults and minors) and 715 dogs were recorded entering or leaving the site by the surveyor during 64 hours of survey. The 3,201 people recorded were in 1,404 groups, and included 629 minors. It is very hard to extrapolate these values into an annual estimate, as these totals provide a snapshot of the visitor rates during the summer. The summer estimates provide an average of approximately 400 people per day.

3.2 From this it can be estimated that a typical group consisted of about two people, with half of all groups including a minor, and half including a dog (2.3 people per group, 0.5 minors per group, 0.5 dogs per group).

3.3 Table 1 shows the number of groups, people, dogs and minors recorded entering at each survey location. This shows that, on average, there were 27.4 people per hour recorded passing the survey points. There were significant differences in the number of people (adults and minors) entering per session between survey locations: more than twice the number of visitors entered at survey point 1 than at survey point 2 (median for survey point 1 = 49.5 people per session; median for survey point 2 = 23.0; Kruskal-Wallis H=4.62, df=1, p=0.032).

3.4 Using data for both survey points combined, a significant difference was found between the number of people entering in July and in August (median in July of 27.5 people per session; median in August = 79.5, H= 5.73, df=1, p=0.017). These differences are also shown in Figure 1.

Table 1: The total number of groups, people, dogs and minors recorded entering each survey point, shown separately for July and August. Individual cell totals are also presented as adjusted values per hour, shown in brackets.

Month	Survey point	Number of groups entering	Number of people entering	Number of dogs entering	Number of minors entering
July		262 (8.2)	564 (17.6)	139 (4.3)	132 (4.1)
	1	158 (9.9)	328 (20.5)	78 (4.9)	44 (2.8)
	2	104 (6.5)	236 (14.8)	61 (3.8)	88 (5.5)
August		490 (15.3)	1189 (37.2)	210 (6.6)	238 (7.4)
	1	309 (19.3)	750 (46.9)	123 (7.7)	152 (9.5)
	2	181 (11.3)	439 (27.4)	87 (5.4)	86 (5.4)
Total		752 (11.8)	1,753 (27.4)	349 (5.5)	370 (5.8)

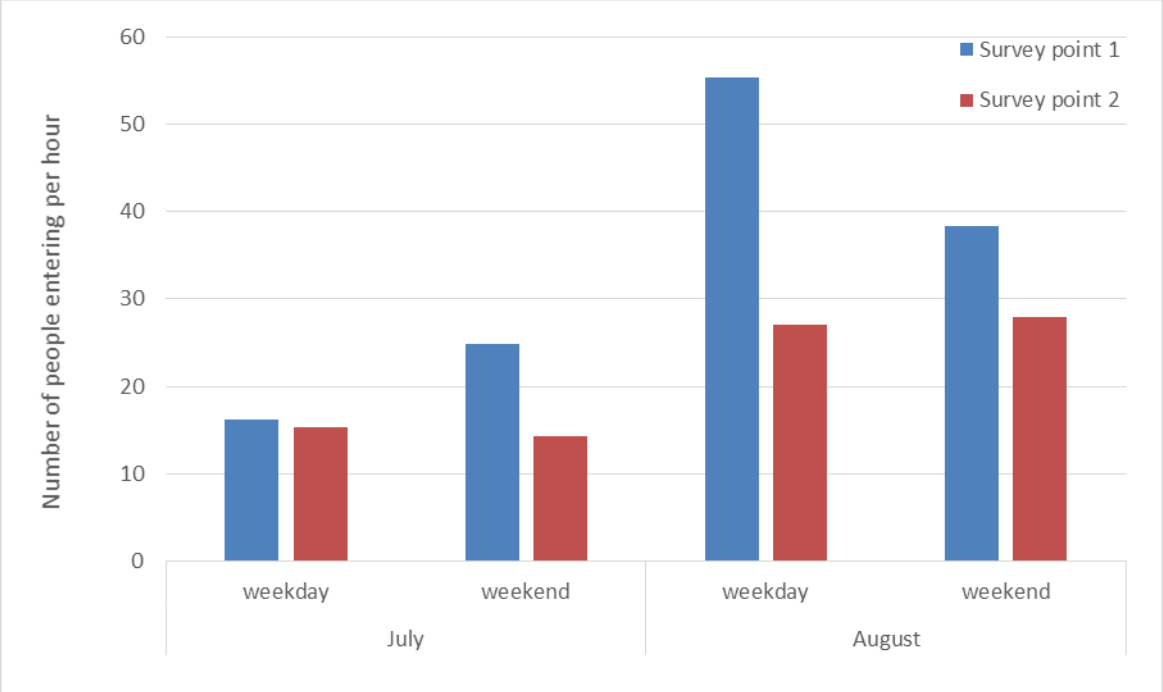


Figure 1: Number of people entering per hour recorded at the two survey points, with comparison made between July and August and weekday and weekend.

3.5 There was little difference in the average group size between survey points – group sizes were slightly larger at survey point 2 (overall average of 2.31 people per group) than survey point 1 (2.26 people per group). This is attributed to, in part, the greater number of minors recorded at survey point 2 (average of 0.56 minors per group), compared to survey point 1 (0.38 minors per group). There was very little difference in

the average number of dogs per group (location 1, 0.52 dogs per group; location 2, 0.49 dogs per group).

Differences between weekday and weekends

3.6 Overall there was no significant difference observed between weekdays and weekend days in number of people entering per session. Significant differences between weekday and weekends were still not observed in any of the tests when data were split by month and by location code (four separate tests). It would appear that, at least in the summer, there is no difference between the number of visitors entering the site at weekend and weekdays.

Differences between time periods

3.7 The number of people entering the site changed over the course of the day, peaking during either of the two periods in the middle of the day (time periods 2 and 3, 10:00-12:00 and 13:00-15:00) (see Figure 2). This was consistent across both survey locations, between July and August, and between weekdays and weekends.

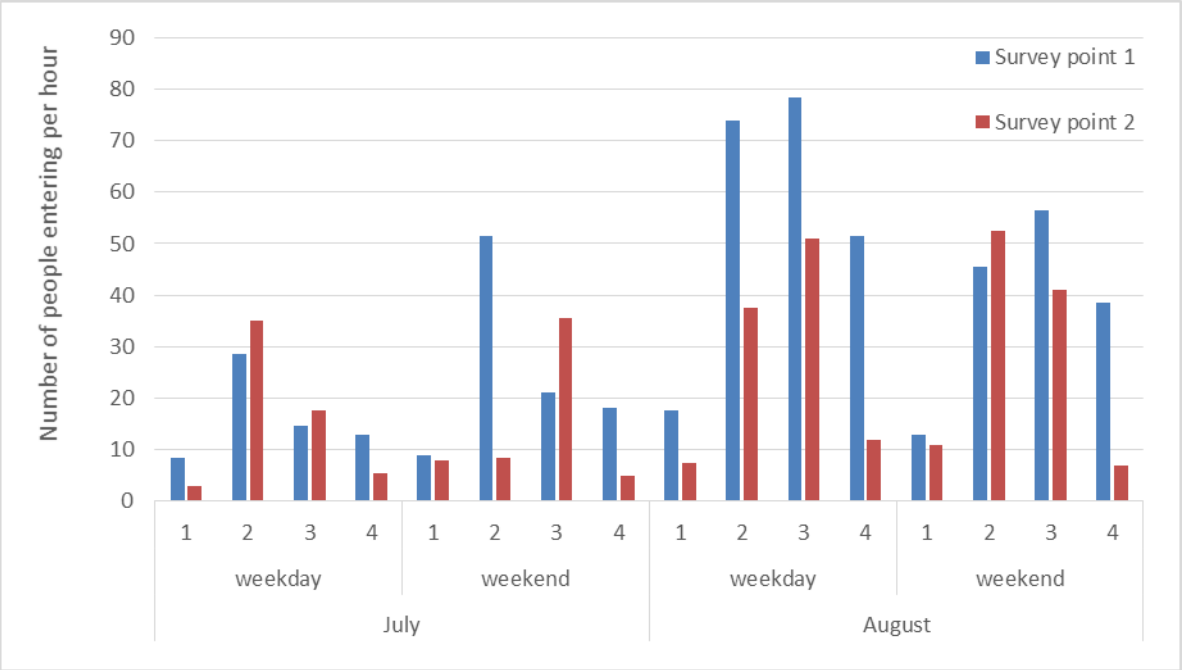


Figure 2: The number of people (adults and minors) recorded entering per hour (total for the 2 hour session/2), recorded across the day, in each two hour time period. (Time periods were; 1= 07:00-09:00, 2= 10:00-12:00, 3=13:00-15:00, 4=17:00-19:00).

Table 2: Weather conditions during each of the surveying days (a survey day consisted of 4 sessions).

Month	Weekday or Weekend	Location Code	Number of sessions with weather conditions			Average of Cloud cover (8th)	Number of sessions with rain
			Mild	Warm	Hot		
July	Weekday	1	2	0	2	3.5	0
	Weekday	2	1	1	2	3.0	1
	Weekend	1	0	0	4	2.3	0

Month	Weekday or Weekend	Location Code	Number of sessions with weather conditions			Average of Cloud cover (8th)	Number of sessions with rain
			Mild	Warm	Hot		
	Weekend	2	0	0	4	4.0	0
August	Weekday	1	0	2	2	2.8	0
	Weekday	2	0	2	2	2.8	0
	Weekend	1	0	3	1	2.0	0
	Weekend	2	0	3	1	5.0	0
Total			3	11	18	3.1	1

Data constraints

3.8 Surveyors noted that, because of the constant flow of visitors to the site, some may have been missed from the tally counts while surveyors were occupied interviewing other visitors. The tally counts may therefore be underestimates.

Interview data

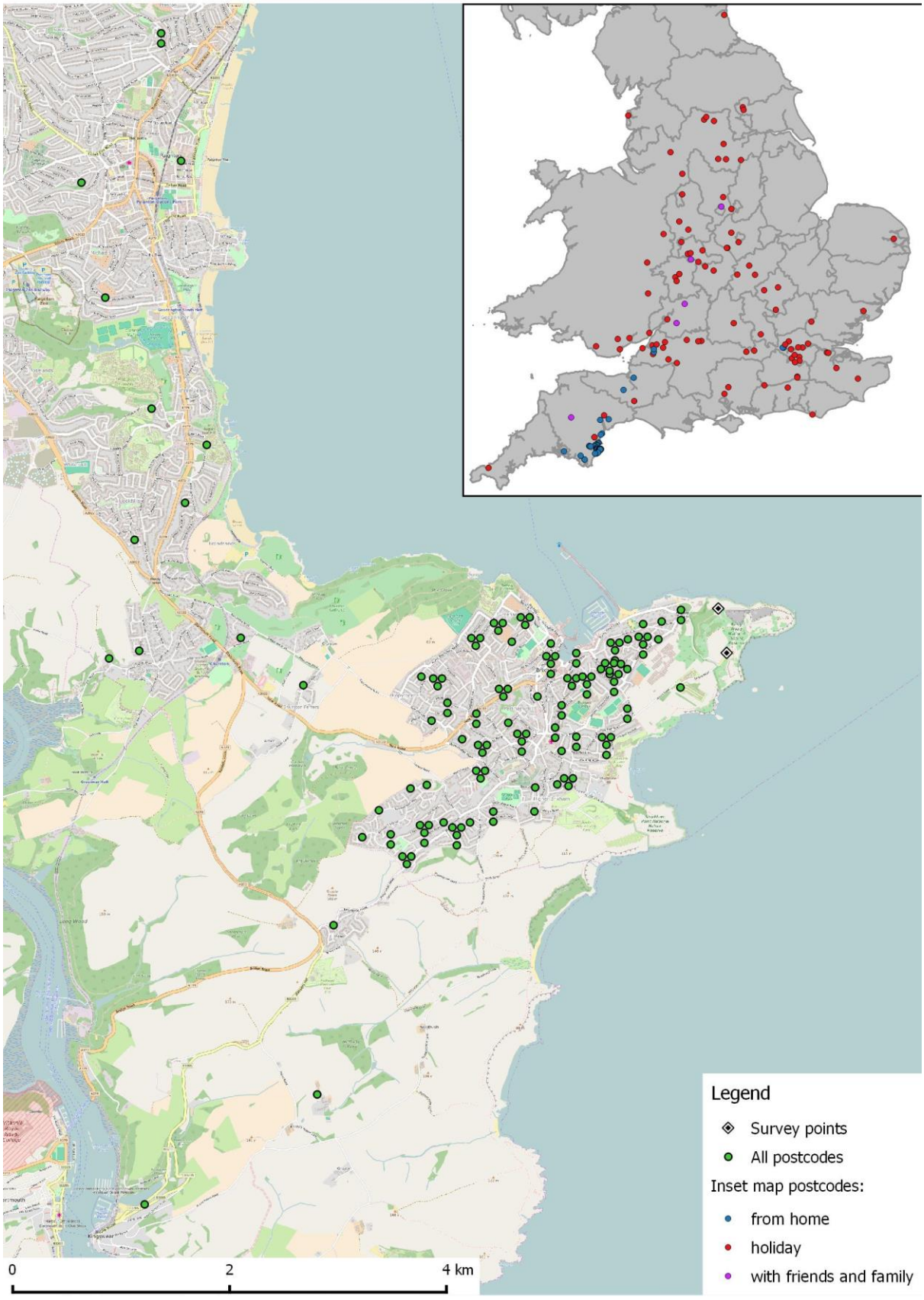
3.9 In total, 266 interviews were conducted during the eight days of survey work. Slightly more were conducted in August (143 interviews) than in July (123 interviews), and more were conducted at survey point 1 (143 interviews), than at survey point 2 (123 interviews).

3.10 Interviewees were asked to describe the nature of their visit to the site i.e. whether they were visiting from home, staying with friends or on holiday. Of the 266 interviewees the majority, 60% (160 interviewees), were visiting directly from home, and this proportion of interviewees was consistent between months. Approximately 36% of interviewees (97 interviewees) described themselves as on holiday to the area, with a further 3% of interviewees (8) staying with friends and family. One interviewee described themselves as “other” in response to this question (a visitor from Australia, who was undertaking seasonal work in Torquay).

3.11 Distances that visitors travelled from home were varied; one interviewee travelled 250 km to the site from home (linear distance). However this was an extreme outlier and interviewees who described themselves as travelling from home lived a median distance of 10.6km away from the site (linear distance), with half of these living within 2.4km. Distances interviewees travelled to the site are discussed in more detail in the postcode analysis.

3.12 The distribution of interviewees’ home postcodes is shown in Map 2.

Map 2: Distribution of interviewee postcodes a) across the UK and b) locally (nearest 50% of interviewees shown).



Contains Ordnance Survey data © Crown copyright and Database Right 2015. Contains map data © OpenStreetMap contributors. Terms: www.openstreetmap.org/copyright

Activities

3.13 Activities recorded were diverse and included dog walking, walking, wildlife watching, exploring, climbing, cycling, kayaking, and art (Table 3). Interviewees were asked for a single main activity; 25 interviewees also gave additional activities (e.g. dog walking and visiting cafe). In most cases one additional activity was given, but three interviewees gave a total of three activities (these were; dog walking/climbing/wildlife watching, dog walking/photography/wildlife watching, dog walking/walking/café).

3.14 Dog walking was the most common activity (41% of interviewees), closely followed by walking (31%) (see Figure 3 and Table 3). After dog walking and walking, the next most common activity was fishing, (7.5), then family outings (6.4%). Remaining interviewees (14.1%) visited for a range of activities, with no single activity given by more than 3% of interviewees. The majority of the 172 dogs accompanying interviewees were off the lead.

3.15 The ranking of these activities was consistent when considering all the activities interviewees said they had undertaken on their visit, rather than just the main activity. Table 3 shows that the other named activities included a greater range. In particular, visiting café was more frequent as an additional activity than a main activity.

Table 3: Frequency of all main activities (number of interviewees) and of main plus additional activities (number of responses).

Activity	Frequency as main activity (Number of interviewees)	Frequency including additional activity (Number of responses)
Dog walking	109	109
Walking	81	87
Fishing	20	21
Outing with family	17	17
Enjoy scenery	7	13
Wildlife watching	8	12
Visiting café	4	10
Jogging/power walking	6	6
Exploring	5	5
Meet up with friends	3	3
Climbing	2	3
Picnicking	1	2
Other, please detail:	1	1
Visiting lighthouse/Napoleonic fort	1	1
Cycling	1	1
Art		1
Kayaking		1
Photography		1
Swimming		1
Total	**266**	295

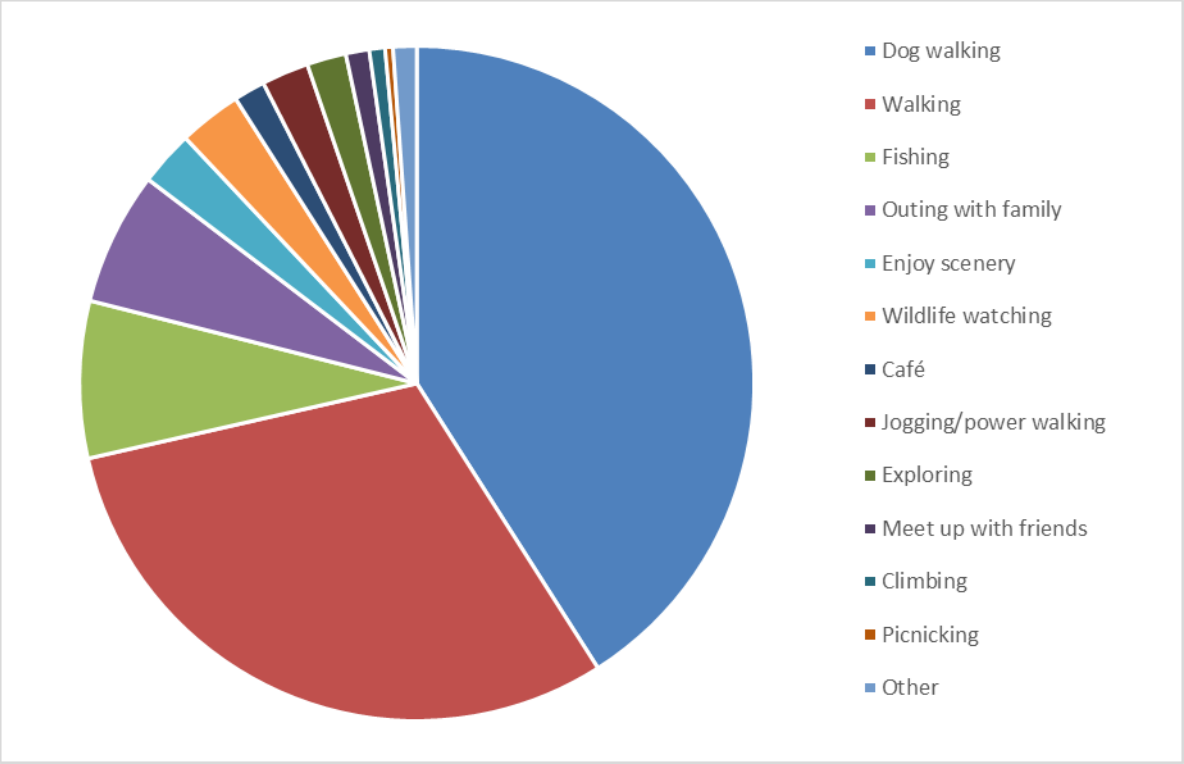


Figure 3: The percentage of interviewees carrying out main activities.

3.16 The size of group is shown in Table 4 according to main activity. This shows that the largest groups (4 people) were typically those on an outing with family or picnicking. Note that for some activities this is based on a small sample (e.g. one group picnicking), therefore caution should be used in interpreting these data.

Table 4: The typical group size of interviewees conducting different activities; the average number of adults and minors in the interviewed group is shown.

Main activity	Number of interviewees	Average number of adults in interviewed group	Average number of minors in interviewed group
Outing with family	17	4.0	1.5
Picnicking	1	4.0	0.0
Visiting café	4	2.8	0.3
Meet up with friends	3	2.7	0.0
Fishing	20	2.4	0.4
Enjoy scenery	7	2.3	0.3
Walking	81	2.2	0.2
Climbing	2	2.0	0.0
exploring	5	2.0	0.0
Visiting lighthouse/Napoleonic fort	1	2.0	0.0
Wildlife watching	8	1.9	0.1
Jogging/power walking	6	1.5	0.0
Dog walking	109	1.5	0.1

Main activity	Number of interviewees	Average number of adults in interviewed group	Average number of minors in interviewed group
Cycling/Mountain Biking	1	1.0	0.0
Other	1	1.0	0.0
Total	266	2.0	0.2

3.17 When interviewers counted the number of dogs accompanying interviewees, they noted whether these were on a lead or not. One hundred and twenty-three interviewees were accompanied by a total of 172 dogs, of which 124 were off the lead.

Visit Duration

3.18 Interviewees were asked how long they had/were intending to be on site as part of their visit. Responses varied markedly, but most interviewees were either visiting for 1-2 hours (37% of interviewees) or for 30 minutes to 1 hour (35% of interviewees). Table 5 shows the responses for each visit duration class broken down for main activities. Interviewees spending the longest on site were those in climbing groups, with both of the two groups interviewed remaining at the site for more than 4 hours. Some of those fishing were also on the site for long periods - although there were a range of responses, most (37%) were visiting for 3-4 hours. The largest activity group, dog walkers, tended to be on the site for 30 minutes to 1 hour (58% of interviewees).

3.19 By using an average time for each size class for duration of visit, the overall average duration can be calculated – this was one hour 40 minutes.

Table 5: Percentage of interviewees (number in brackets) recorded in each visit duration class separated by activity. Highest value for each activity row is highlighted in bold.

	Less than 30 mins	30 mins - 1 hour	1-2 hours	2-3 hours	3-4 hours	> 4 hours
Café	0 (0)	0 (0)	**100 (4)**	0 (0)	0 (0)	0 (0)
Climbing	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	**100 (2)**
Cycling/Mountain Biking	0 (0)	0 (0)	**100 (1)**	0 (0)	0 (0)	0 (0)
Dog walking	6 (6)	**58 (63)**	28 (31)	6 (6)	1 (1)	2 (2)
Enjoy scenery	0 (0)	14 (1)	**57 (4)**	14 (1)	14 (1)	0 (0)
Exploring	0 (0)	**40 (2)**	**40 (2)**	0 (0)	20 (1)	0 (0)
Fishing	0 (0)	0 (0)	10 (2)	25 (5)	**35 (7)**	30 (6)
Jogging/power walking	0 (0)	**67 (4)**	17 (1)	17 (1)	0 (0)	0 (0)
Meet up with friends	0 (0)	0 (0)	**67 (2)**	33 (1)	0 (0)	0 (0)
Other	**100 (1)**	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Outing with family	0 (0)	24 (4)	**47 (8)**	24 (4)	6 (1)	0 (0)
Picnicking	0 (0)	0 (0)	**100 (1)**	0 (0)	0 (0)	0 (0)
Visiting lighthouse/ Napoleonic fort	0 (0)	0 (0)	0 (0)	**100 (1)**	0 (0)	0 (0)
Walking	0 (0)	22 (18)	**46 (37)**	15 (12)	5 (4)	12 (10)
Wildlife watching	0 (0)	0 (0)	**63 (5)**	25 (2)	0 (0)	13 (1)

	Less than 30 mins	30 mins - 1 hour	1-2 hours	2-3 hours	3-4 hours	> 4 hours
Total	3 (7)	35 (92)	**37 (98)**	12 (33)	6 (15)	8 (21)

Visit Frequency

3.20 Interviewees were asked how frequently they had visited Berry Head over the past year. The majority of visitors had visited the site at least once before, but a large minority were on their first visit to the site (83 interviewees, 31%). Other responses were fairly evenly split between the remaining classes (see Figure 4) ranging from visiting daily to visiting less than once a month (note that, for those on holiday to the area who may have visited daily during their stay, this would still only constitute a handful of visits over the course of the year).

3.21 One of the key factors determining visit frequency is the distance travelled (see Postcodes below), with those living far away clearly less likely to visit frequently. Figure 4 shows the percentage of interviewees in each of the six visit frequency classes, split according to distance to the survey point. Interviewees whose home postcode was within 3.9 km of the survey points were residents of Brixham. Of these 114 interviewees, most (37%) were daily visitors to the site. With increasing linear distance from the site, the visit frequency decreased and an increasing proportion of interviewees were visiting for the first time (for reference, the 20 km radius includes as far as Teignmouth, while the 100km radius includes most of Devon and Cornwall, and as far as Taunton and Yeovil included, but not as far as Bristol and Bournemouth).

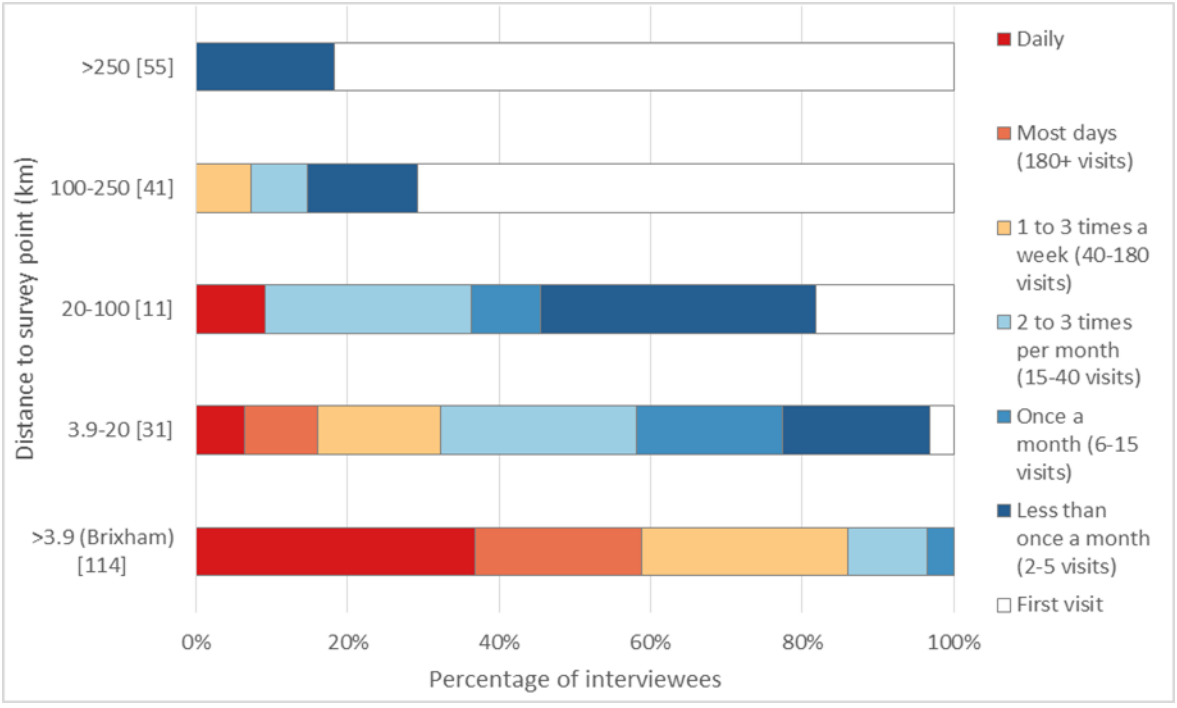


Figure 4: Visit frequency of interviewees shown as the percentage of interviewees for each visit frequency class, separated by distance classes of interviewee's home postcode to the survey point. Grouping of distance classes were defined by eye, with the < 3.9km class covering just Brixham. Number of interviewees in each distance class shown in square brackets.

Timing of visit

3.22 Interviewees were asked what time of day they normally visited (and could choose more than one period). For those who had visited more than once, late morning and "varies/don't know" were the most frequent response, followed by early morning and evening, with early afternoon (lunchtime) the least frequent.

Table 6: Preferred time of day to visit (more than one response possible per interviewee)

Period	No interviewees
Early morning	65
Late morning (between 9am and 12)	40
Early afternoon (between 12 and 2)	23
Late afternoon (between 2 and 4pm)	17
Evening (after 4pm)	44
Varies/don't know	65
First visit	82

3.23 Normal visiting periods varied according to activity. Figure 5 shows the normal time period according to the more frequent main activities (i.e. those undertaken by at least 5 interviewees). A substantial proportion of interviewees gave "varies/don't know" as a response, with the exception of those wildlife watching or visiting the café.

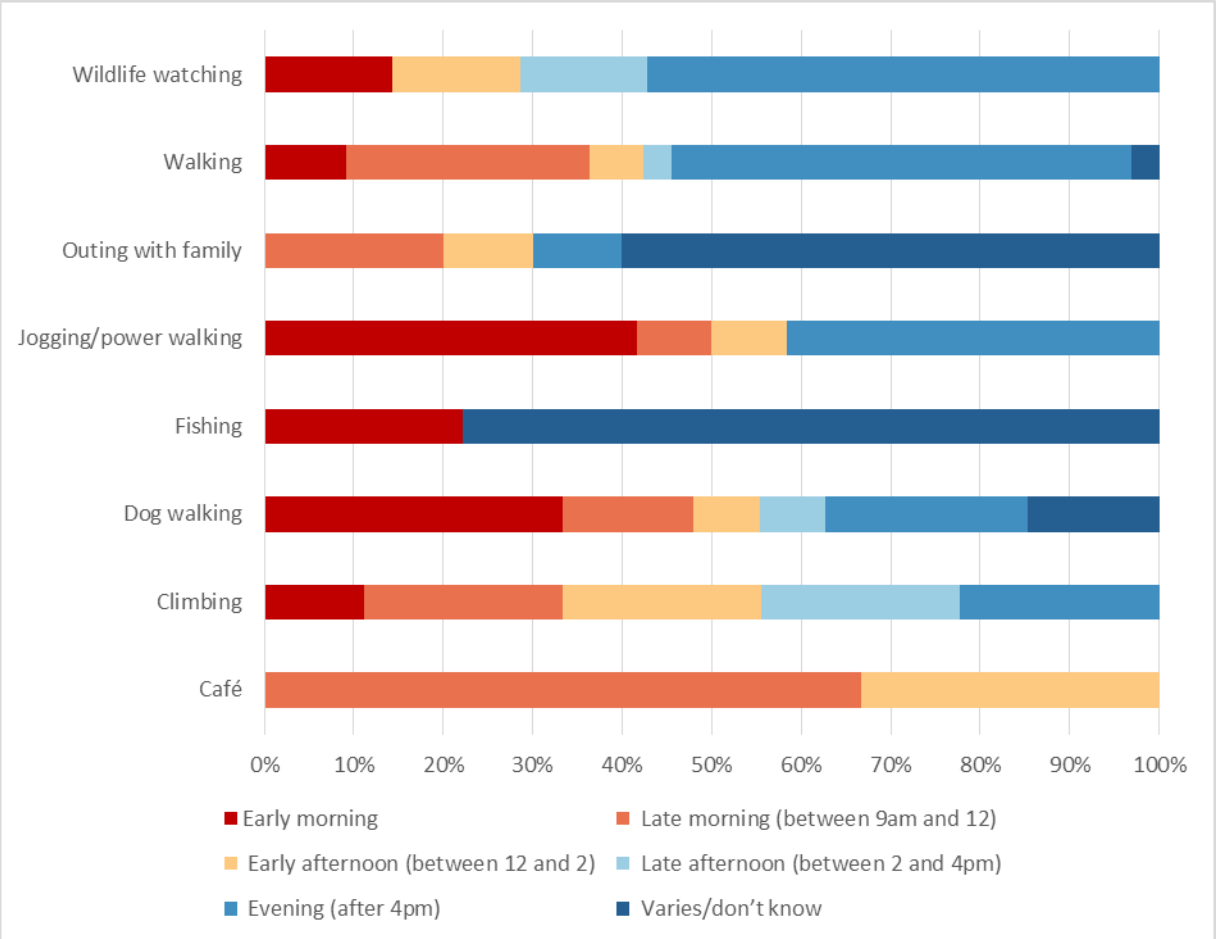


Figure 5: Normal visiting period according to activity for more frequent main activities (n>4).

3.24 Interviewees were also asked in which season they normally visited. The most common response (70%) was equally all year, followed by summer then spring. Again this varied according to activity type, with interviewees meeting up with friends or visiting the café more likely to come in the spring and summer.

Table 7: Preferred time of day to visit (more than one response possible per interviewees)

Season	No of interviewees
Spring (Mar-May)	17
Summer (Jun-Aug)	32
Autumn (Sept-Nov)	9
Winter (Dec-Feb)	3
Equally all year	147
Don't know	1
First visit2	81

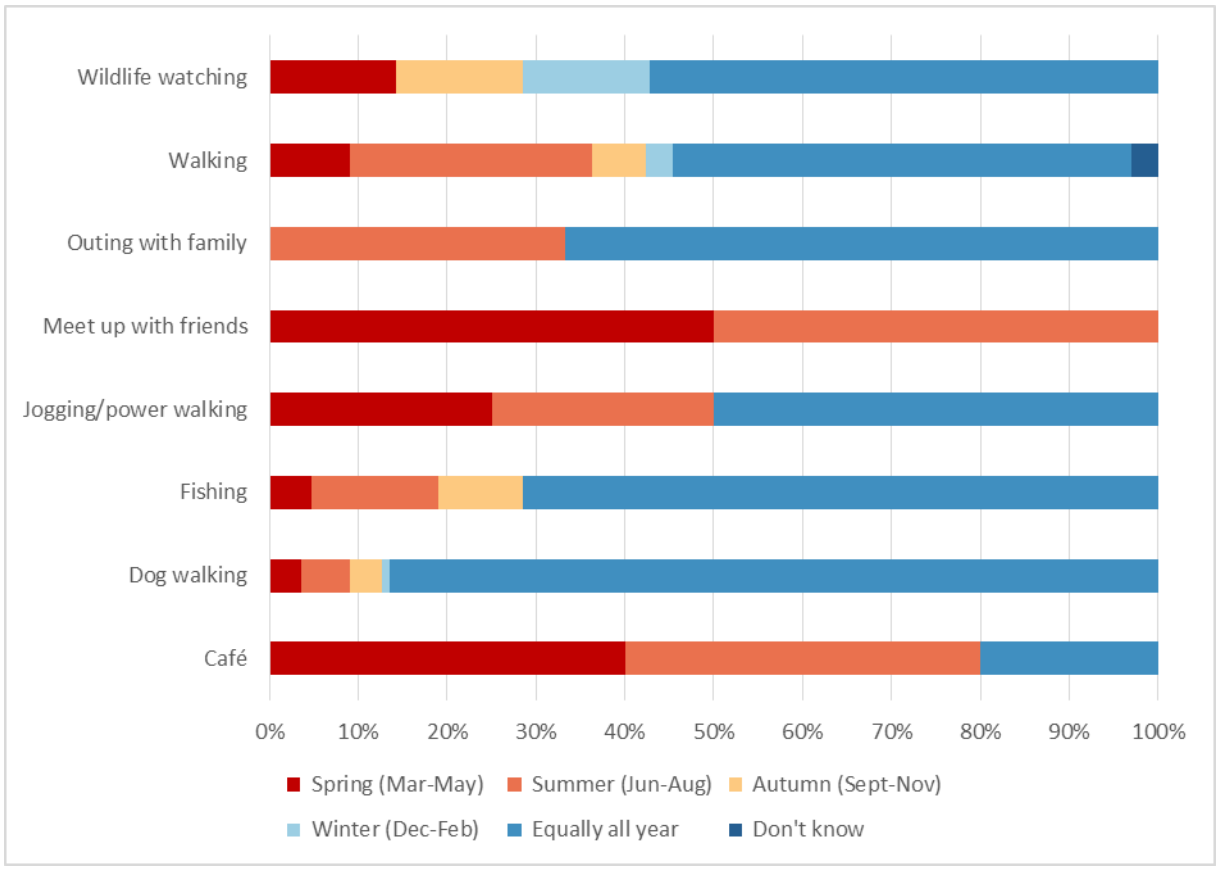


Figure 6: Seasons in which interviewees undertaking different activities visited Berry Head.

Transport

3.25 The majority of interviewees (62%) arrived by car (or van etc.). Most of the remaining interviewees arrived by foot (36%), while two arrived by public transport and one by boat.

Reasons for visiting this site

3.26 Interviewees were asked to give their main reason for visiting Berry Head (rather than another local site), followed by any other reasons. The most commonly given overall and main reason was the scenery and views by quite some margin (see Figure 7, Table 8). Other reasons were more evenly distributed between the categories. "Good for dog" was the most commonly given other reason, followed by several with similar number of responses (e.g. "habit/familiarity", "near coast/water" "other", "rural feel/wild landscape", followed by "café", "ability to let dog of the lead" and "particular wildlife interest".

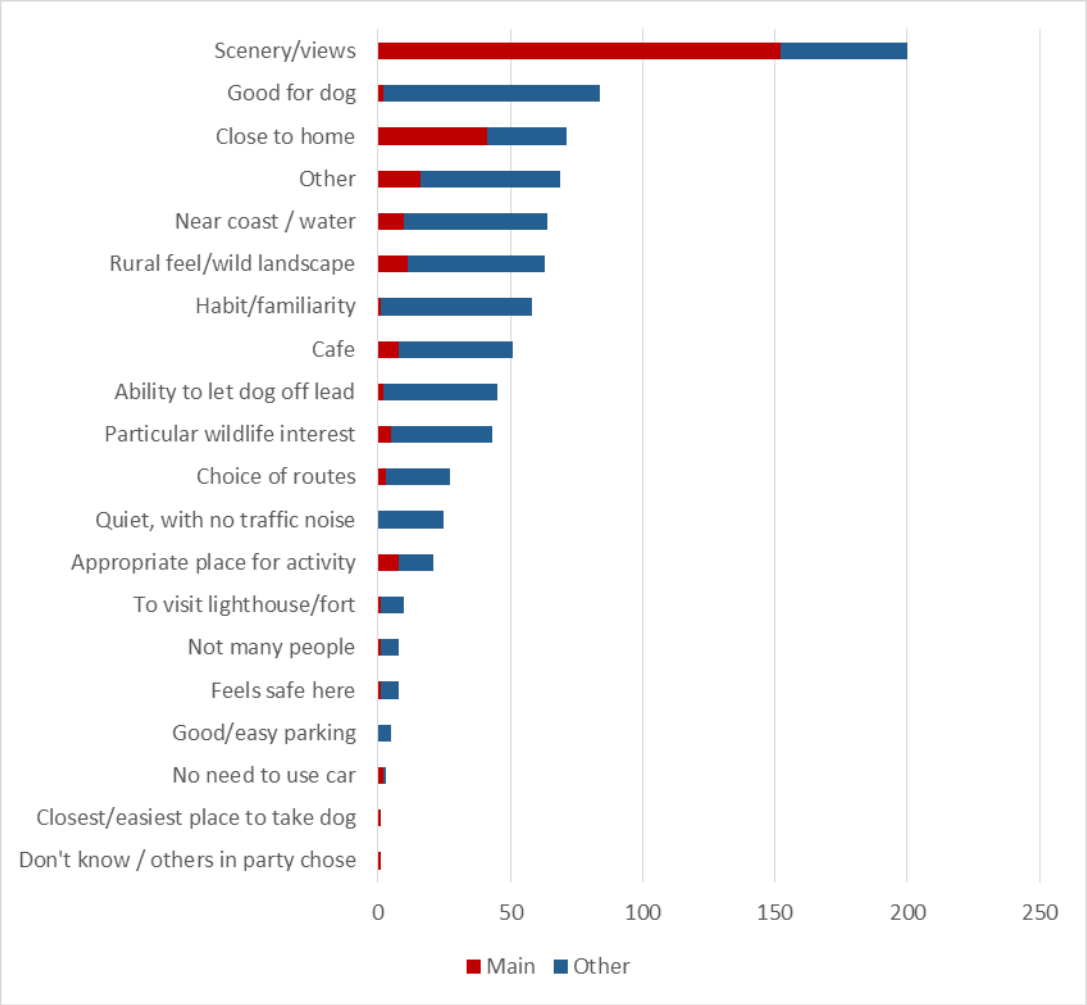


Figure 7: Interviewees' reasons for visiting Berry Head (rather than another local site).

3.27 This varied between activity types. For example, although scenery/view remained the most common reason that dog walkers visited the site, the second reason was "close to home" while "good for dog" was the most common other reason (see Figure 8). Most walkers also gave scenery/views as their first reason, but this was followed by "near coast/water" and "rural/wild feel", which were also the most common other reasons.

Table 8: Main and additional reasons that interviewees visited Berry Head rather than another local site.

Reason	Main	Additional	Total reasons
Scenery/views	152	48	200
Close to home	41	30	71
Other, please detail	16	53	69
Rural feel/wild landscape	11	52	63
Near coast / water	10	54	64
Cafe	8	43	51
Appropriate place for activity	8	13	21
Particular wildlife interest	5	38	43
Choice of routes	3	24	27
No need to use car	2	1	3
Good for dog	2	82	84
Ability to let dog off lead	2	43	45
Don't know / others in party chose	1	0	1
To visit lighthouse/fort	1	9	10
Feels safe here	1	7	8
Not many people	1	7	8
Habit/familiarity	1	57	58
Closest/easiest place to take dog	1	0	1
Quick/easy travel route to get here	0	0	0
Good/easy parking	0	5	5
Quiet, with no traffic noise	0	25	25
Closest/easiest place to let dog safely off lead	0	0	0
Total	266	591	857

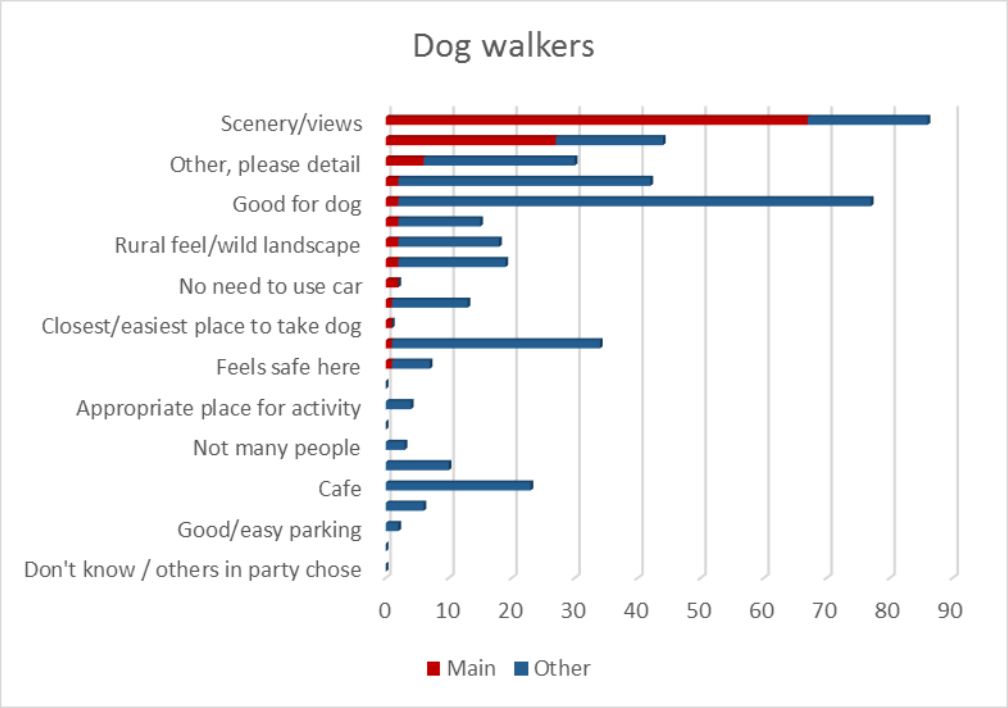


Figure 8: Dog walkers - reasons for visiting Berry Head (rather than another local site).

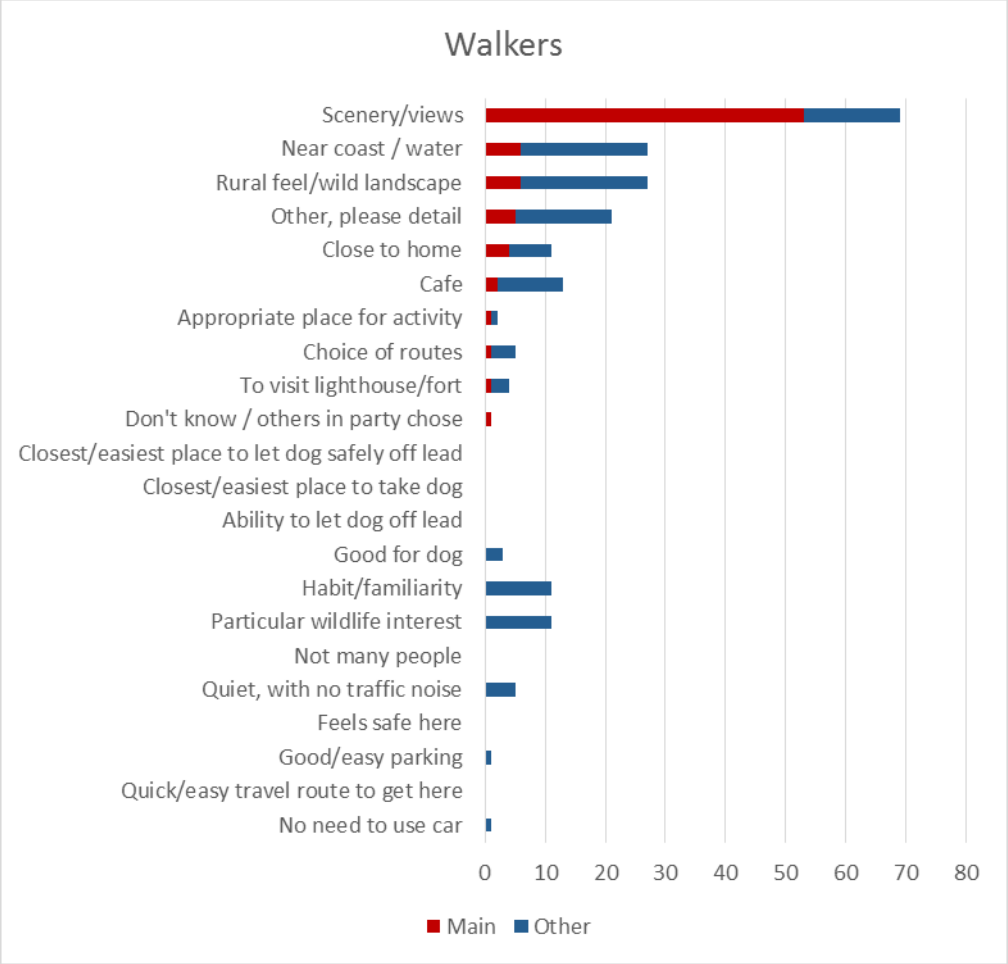


Figure 9: Walkers - reasons for visiting Berry Head (rather than another local site).

3.28 "Other" was the fourth most frequent main reason. Table 9 lists the more frequent "other" responses (see Appendix 1 for the full list).

Table 9: Reasons other than those already listed in the questionnaire that interviewees chose to visit Berry Head rather than another local site.

Other reason for visiting Berry	No. of interviewees
Historical features	10
Coastal walks	6
Dog friendly	6
Recommended in guide book/brochure/trails	5
Open space	5
Clean/well kept	4
Sociable	4
Fishing	3
Good path surfaces	3
Good disabled access	2
No restrictions	2
Good for climbing	2

Nearby sites

3.29 Interviewees were asked if they also visited a number of other local sites (Sharkham point, Churston Cove and The Grove Woodland, Broadsands. Broadly speaking, around half of interviewees did also visit these other sites (slightly more visited Broadsands, slightly less Sharkham Point and Churston Cove – see Table 10).

Table 10: The number of interviewees who did/did not also visit named other sites.

	Sharkham Point	Churston Cove	Broadsands
No	134 (50.4%)	156 (58.7%)	119 (44.8%)
Yes	132 (49.7%)	110 (41.4%)	147 (55.3%)

3.30 If interviewees did not visit these sites, or only rarely visited, they were then asked what changes could potentially be made to encourage them to visit these sites. For all three sites, the largest proportion of interviewees said that there were no changes that could be made that would encourage them to visit these sites more; this was particularly the case at Churston Cove. However, better information was suggested for all sites.

3.31 There were some statistically signficant differences between sites in terms of responses (Chi-squared, df=12, χ^2=65.9, p<0.001, categories with 1 or few responses removed). There is potential for better parking and information at Sharkham Point. At Broadsands "other" changes were particularly important – in the majority of cases this related to the no dogs in summer policy. All "other" reasons are listed in Appendix 2.

Table 11: Possible change that could be made at three other local sites to encourage interviewees to visit those site.

Possible change	Sharkham Point	Churston Cove	Broadsands
Nothing	91 (46%)	89 (60.6%)	74 (47.5%)
More amenity management e.g. cutting vegetation	7 (3.6%)	(0%)	(0%)
More facilities (please specify)	5 (2.6%)	(0%)	3 (2%)
Other (please specify)	28 (14.2%)	16 (10.9%)	47 (30.2%)
Don't know site	26 (13.2%)	16 (10.9%)	12 (7.7%)
Better parking	21 (10.7%)	1 (0.7%)	2 (1.3%)
Better information about site (e.g. leaflets)	19 (9.6%)	24 (16.4%)	16 (10.3%)
More management for wildlife	1 (0.6%)	(0%)	2 (1.3%)
More choice of routes	(0%)	1 (0.7%)	(0%)
TOTAL	198	147	156

Postcodes

3.32 Of the 266 interviewees, 252 provided a full georeferenced postcode. This was used to calculate a linear (Euclidean) distance from interviewee's home postcode to the site.

3.33 There were significant differences in the linear distances between the three visit types; distances were shortest for those visiting from home (median = 2.4 km), longest for those on holiday (median = 256.8km) and intermediate for those staying with friends and family (median =113.5km) (Kruskal Wallis; H=160.4, df=2, p<0.001).

3.34 Overall there was no significant difference in the distances to home postcode between the individual survey points (H=0.17, df= 1, p=0.676), indicating that people living close to the site and those travelling from afar both use the main car park and walk into the site from Brixham. There was no difference between July and August (Kruskal Wallis, H=0.22, df=1, p=0.640).

3.35 There were some clear differences in distance from home relating to the main activity undertaken. Figure 10 shows that interviewees who were "dog walking" or "meeting up with friends" had generally travelled very short distances, while interviewees describing their visit as "enjoying the scenery", "on an outing with the family" and "walking" came from a wide range of distances, and included locals and long distance visitors. Those who described themselves as "exploring" had generally travelled the furthest distance to the site. These differences in linear distances between activities were statistically significant (Kruskal Wallis, H=87.86, df=13, p<0.001).

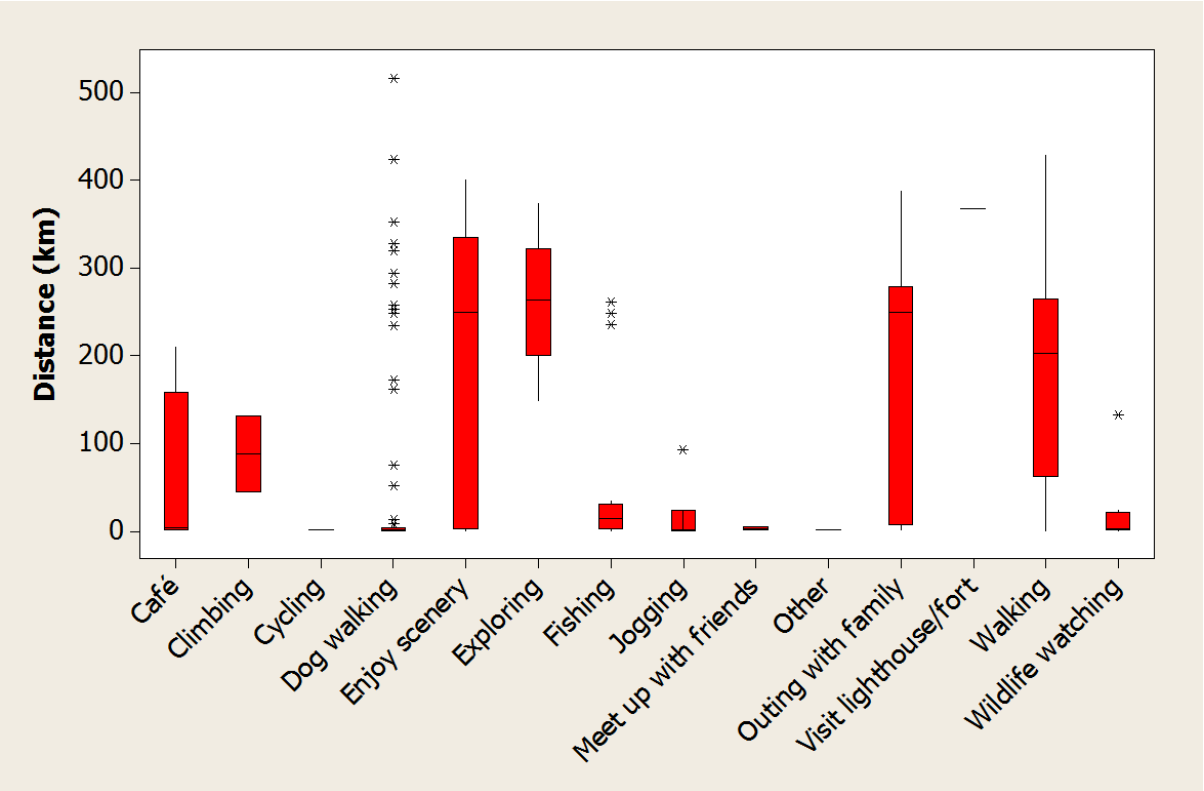


Figure 10: Box and whisker plots to show the range of distances from home postcode to the site reported by interviewees for each interviewee's activity. Asterisks indicate outlier values.

3.36 Approaching half of all interviewees (114, 45% of interviewees who gave a postcode) came from 97 unique postcodes in Brixham (Brixham has 8,593 residential properties in 547 postcodes).

3.37 The main activities of interviewees from Brixham are compared with those of interviewees from elsewhere in Table 12. Difference were statistically significant (using only those activities with more than 1 response from both type of interviewee) (Chi-squared, df=6, χ^2=170.7, p<0.001).

3.38 The vast majority of interviewees from Brixham were dog walking (67.5%); while most common activity for those from elsewhere was walking (47.1%). A notably larger proportion of interviewees from elsewhere were also "fishing" or on an "outing with family". Activities that were undertaken only by interviewees from outside of Brixham were "exploring" (5 interviewees, 3.6% of interviewees from outside Brixham) and "climbing" (2 interviewees, 1.4% of interviewees from outside Brixham).

Table 12: Number, and proportions in brackets, of interviewees conducting different activities. Those resident outside of Brixham are compared to those from outside of Brixham. Table is sorted by the overall total number of interviewees recorded for each activity.

Activity	Interviewees from Brixham	Interviewees outside of Brixham
Dog walking	77 (67.5)	27 (19.6)
Walking	13 (11.4)	65 (47.1)
Fishing	4 (3.5)	13 (9.4)
Outing with family	3 (2.6)	12 (8.7)
Wildlife watching	4 (3.5)	4 (2.9)
Enjoy scenery	2 (1.8)	5 (3.6)
Jogging/power walking	5 (4.4)	1 (0.7)
Exploring	0 (0.0)	5 (3.6)
Café	2 (1.8)	2 (1.4)
Meet up with friends	2 (1.8)	1 (0.7)
Climbing	0 (0.0)	2 (1.4)
Other	1 (0.9)	0 (0.0)

Routes

3.39 Routes were recorded from all but one interviewee (a dog walker).

3.40 Route length varied between 0.5km and 4.3km (average 2.1 km). Routes from the survey point at the car park (survey point 1) were usually shorter (average length 2.0 km) than those from the view point near Brixham (survey point 2) (average length 2.3 km). Route lengths according to activity type are shown in Table 13. In general, interviewees on an outing with family walked the furthest (excluding the one interviewee who was visiting the lighthouse/fort) and those meeting friends the shortest distance.

Table 13: The summary of interviewee's route lengths separated by the different activities being conducted at Berry Head. Table is sorted by the median route length, but that this can be based on a small number of interviewees.

Activity	Number of interviewees	Average (median route length (km)
Visiting lighthouse/Napoleonic fort	1	3.86
Outing with family	17	2.86
Exploring	5	2.81
Enjoy scenery	7	2.58
Wildlife watching	8	2.32
Walking	81	2.30
Picnicking	1	2.13
Dog walking	108	2.07
Fishing	20	2.00
Jogging/power walking	6	1.93
Climbing	2	1.83
Other, please detail:	1	1.75
Café	4	1.45
Cycling/Mountain Biking	1	1.24
Meet up with friends	3	0.82
Total	266	2.09

Route density

3.41 The frequency with which different routes were used by interviewees can be seen in Figure 11 and Figure 12. A number of features can be picked out:

- The density of routes along the main track and paths converging on the fort entrance
- Diffuse trampling around the café area, the South Fort and Durl Head
- The return loop from the lighthouse on the southern side of the plateau
- A route around the central paddocks and through the woodlands
- Routes to Brixham and nearby holiday parks
- Elsewhere, a fairly extensive network of paths used by just a few individuals.

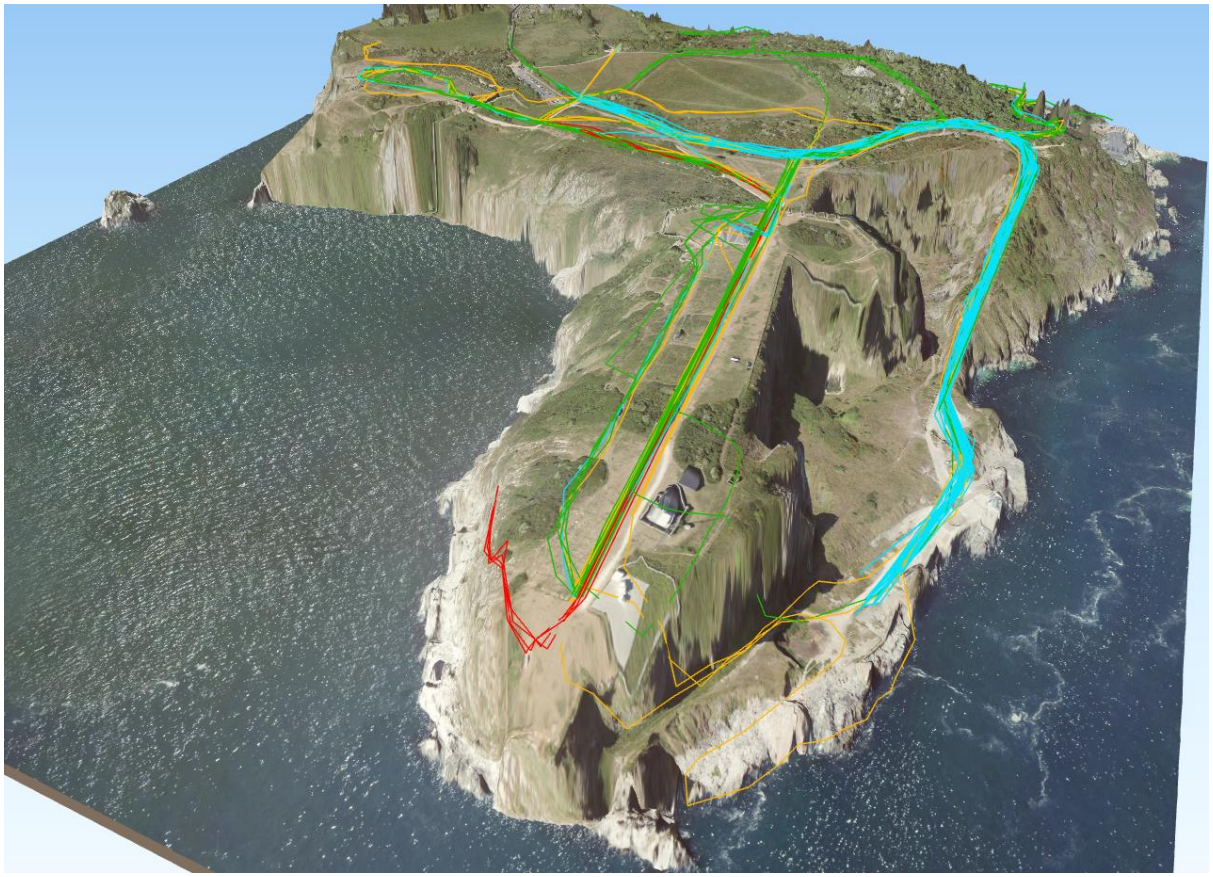
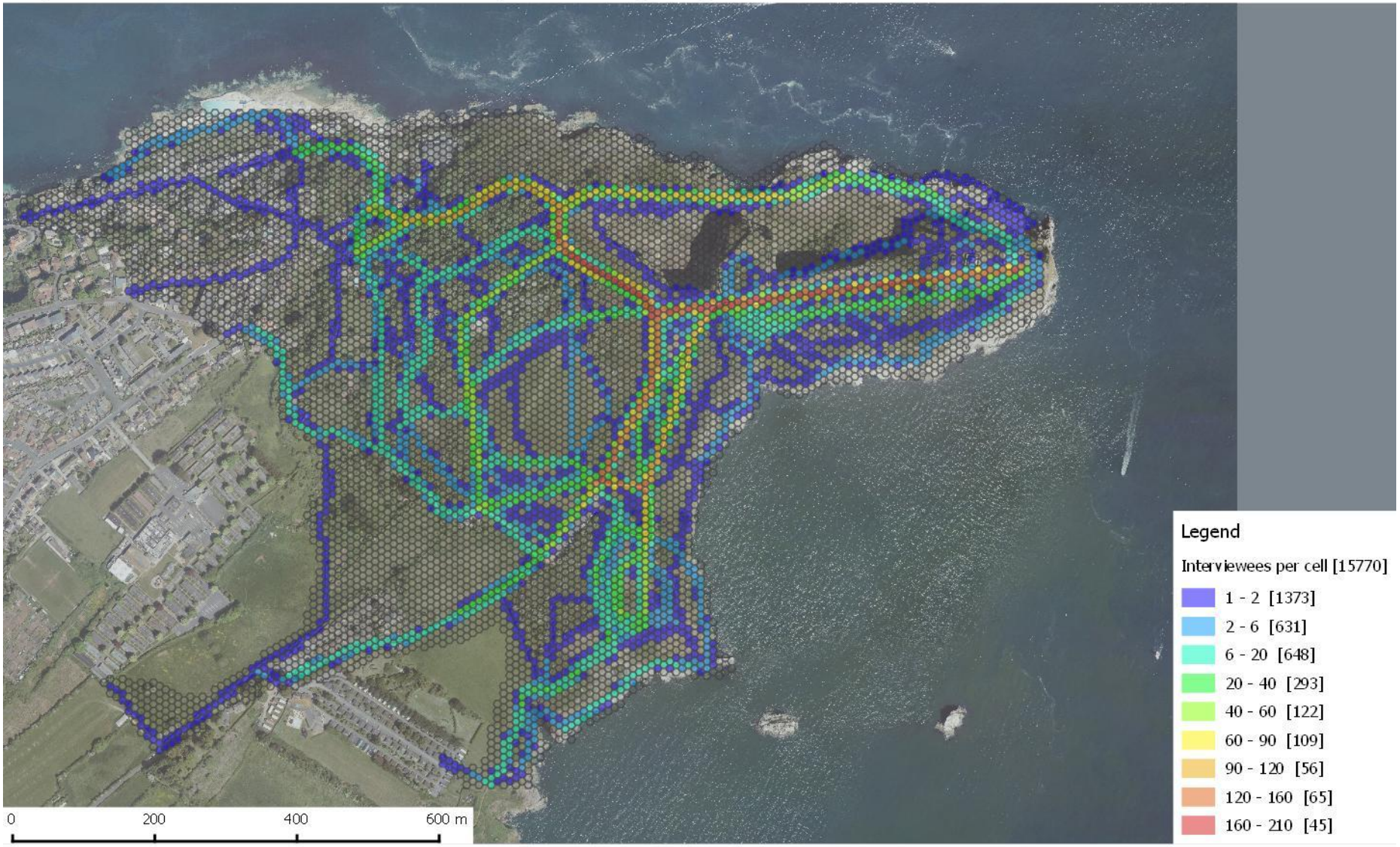


Figure 11: Visualisation of routes on Berry Head; climbing – red, wildlife watching – orange, fishing – blue, enjoying scenery/exploring - green. (Aerial photography (c) Getmapping plc).

Figure 12 Visualisation of routes on Berry Head; dog walkers – red, walkers – orange. (Aerial photography (c) Getmapping plc).

Map 3 : Density of interviewees routes recorded per 15 m hexagonal grid cell.



Contains Ordnance Survey data © Crown copyright and Database Right 2016. Contains map data © OpenStreetMap contributors. Terms: www.openstreetmap.org/copyright. Aerial photography © Getmapping plc.

3.42 To explore further the way in which interviewees undertaking different activities use Berry Head, the site was split into 10 areas see Map 4. The areas were drawn up such that sensitive plant areas identified in the recent vegetation survey (Wilson & Wheeler 2016) fall within entirely within particular areas, as do other features of relevance, such as the main track. Table 14 shows the percentage of interviewees for each activity that visited different areas of Berry Head.

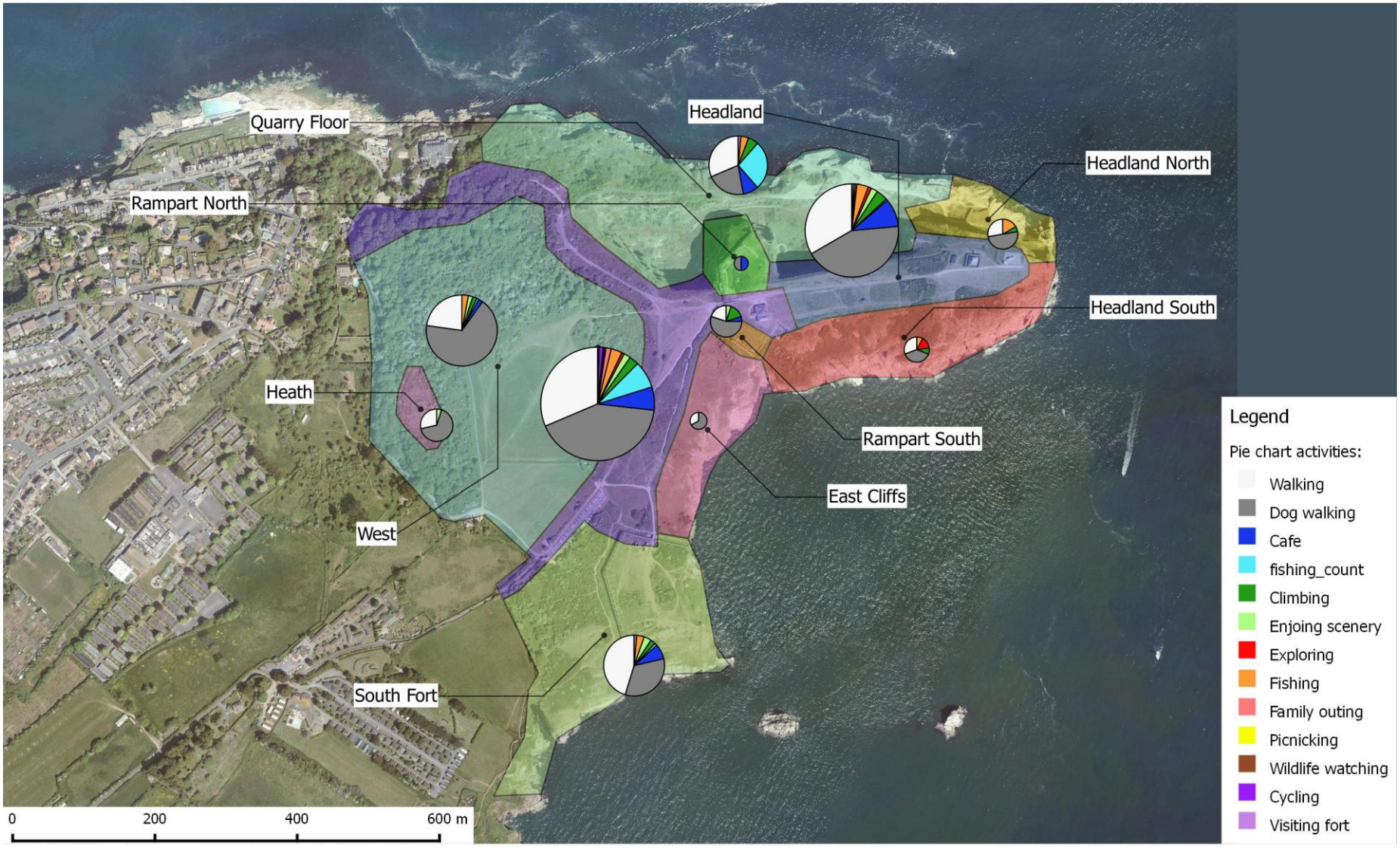
3.43 Table 14 along with Map 3 show the use of different parts of the site, by the different user groups. Table 14 shows the importance of the track and parallel paths and main route to the lighthouse – all interviewees' routes crossed within this area at some point. Many of the interviewees' routes included the main headland (67%). The vast majority of interviewees visiting the site for fishing (95%) accessed the quarry floor, while those climbing used the Headland and South Headland. However, those interviewees meeting with friends or going to the café rarely walked to other parts of the site than the main paths and café. Of dog walkers, 69% used the Headland and 63% the West area of woodland, while 23% used the South Fort. Walkers mainly used the Headland (72%), while 27% went to the Quarry Floor and 28% the West area.

3.44 These data make it possible to pinpoint major user groups for particular areas of Berry Head, meaning they can be targeted as appropriate for messages regarding responsible use of the site

Table 14: The percentage of interviewees for each activity, whose route went through each area of Berry Head. Value of more than 50% of interviewees for the activity are highlighted in bold.

	Headland North	Headland South	East Cliffs	South Fort	Rampart North	Rampart South	Main paths and Cafe	Headland	Quarry Floor	Heath	West
Café	0	0	0	0	0	0	**100**	25	0	0	0
Climbing	0	**100**	0	0	0	0	**100**	**100**	0	0	0
Cycling/Mountain Biking	0	0	0	0	0	0	**100**	0	0	0	0
Dog walking	8	5	4	23	2	10	**100**	**69**	14	13	**63**
Enjoy scenery	14	14	0	29	0	43	**100**	**100**	**57**	0	29
Exploring	0	0	0	**60**	0	20	**100**	**80**	0	20	40
Fishing	0	0	0	5	0	0	**100**	5	**95**	0	5
Meet up with friends	0	0	0	0	0	0	**100**	0	0	0	0
Outing with family	0	0	0	35	12	6	**100**	**100**	35	0	12
Picnicking	0	0	0	0	0	0	**100**	**100**	0	0	0
Walking	6	5	2	42	0	5	**100**	72	27	7	28
Wildlife watching	38	13	0	38	0	0	**100**	**88**	38	0	38
Visiting lighthouse/ Napoleonic fort	0	0	0	**100**	0	0	**100**	**100**	**100**	0	0
Total	7	5	2	29	2	8	**100**	**67**	27	8	39

Map 4 : Mapped pie charts to show proportions of interviewees visiting different areas of Berry Head.



Contains Ordnance Survey data © Crown copyright and Database Right 2016. Contains map data © OpenStreetMap contributors. Terms: www.openstreetmap.org/copyright. Aerial photography © Getmapping plc.

Influences of route

3.45 A number of factors influenced interviewees' choice of route (see Table 15 – not all interviewees answered this question). For people who had visited previously, the most common factor was previous knowledge of the area/experience, followed by "other". Time available, destination (fort/lighthouse/quarry) and using the coast path were also important. For those who were visiting for the first time (although others in their group may have visited previously), "other" was the most common factor, followed coast path, and going to the lighthouse/fort.

Table 15: Factors influencing interviewees' choice of route at Berry Head.

Factor	Visited previously	First visit
Previous knowledge of area / experience	74 (42.8%)	3 (5.2%)
Other, please detail	41 (23.7%)	23 (39.7%)
Time	16 (9.3%)	2 (3.5%)
Activity undertaken (e.g. dog walking, reaching shore)	10 (5.8%)	1 (1.8%)
Going to lighthouse/fort	9 (5.3%)	8 (13.8%)
Going down to the shore	8 (4.7%)	1 (1.8%)
Following coast path	7 (4.1%)	10 (17.3%)
Path surface/gradient	4 (2.4%)	2 (3.5%)
Interpretation / leaflets / promotion	1 (0.6%)	5 (8.7%)
Other users (avoiding crowds etc.)	1 (0.6%)	2 (3.5%)
Followed a marked trail	1 (0.6%)	1 (1.8%)
Needs of group members (e.g. kids, less able)	1 (0.6%)	(0%)

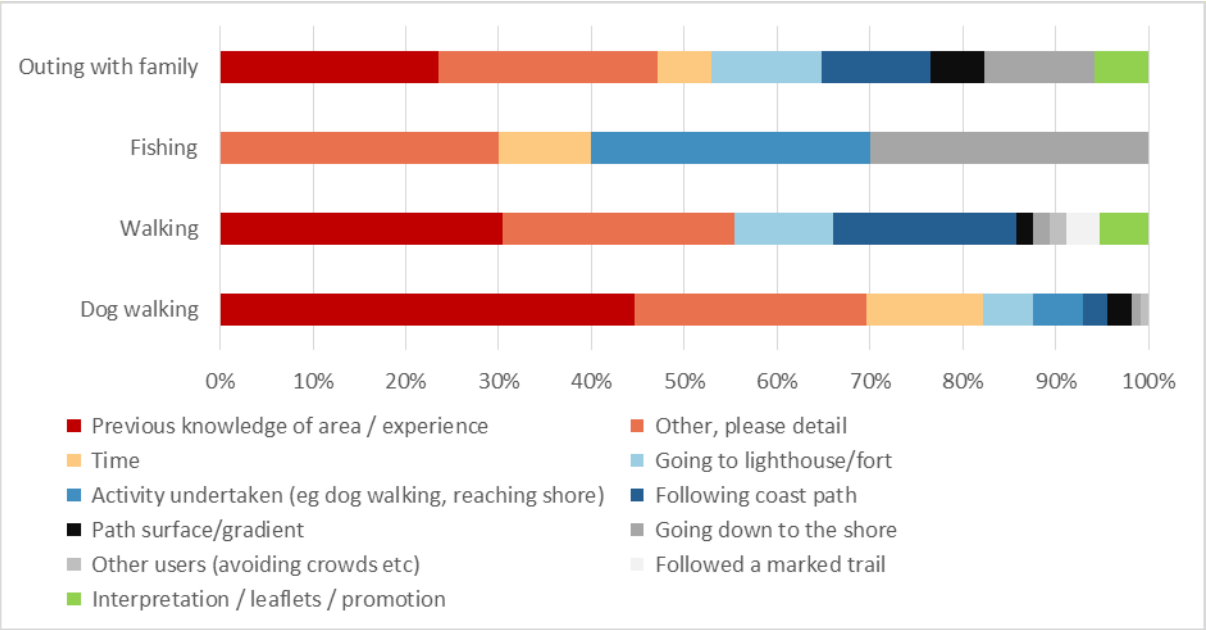


Figure 13: Factors influence interviewees' choice of route at Berry Head, shown according to main activity.

3.46 Overall, the pattern was broadly consistent between user groups (see Figure 13: Factors influence interviewees' choice of route at Berry Head, shown according to main activity. with the exception of people fishing, for whom "other" and "ease of access to shore" were more important.

3.47 The "other" category included a diverse range of reasons (see Appendix 3), the most common of which are listed in Table 16: "Other" factors influencing choice of route given by two or more interviewees.

Table 16: "Other" factors influencing choice of route given by two or more interviewees.

Other factors influencing choice of route	No. of interviewees
Exploring/wandering around	10
Café	9
Woodland	4
Weather related	3
Particular wildlife	3
Depends on livestock	2
Rekindling memories	2

Possible changes to routes

3.48 Interviewees were asked if they would consider taking an alternative route on site. Overall, a large majority (85%) said they would be willing to do so. However, this varied between user groups. Only half of the people visiting Berry Head to go to the café or to go fishing were willing to change their route, and only one of the people visiting to meet up with friends.

Table 17: The percentage of interviewees from each activity group that would consider taking an alternative route on the site. Interviewees who did not respond or were not sure (12 interviewees) are included in the percentage calculation, and therefore make up the remaining percentages.

Activity	Number of interviewees	Percentage No	Percentage Yes
Café	4	50	50
Climbing	2	0	100
Cycling/Mountain Biking	1	0	100
Dog walking	109	8	85
Enjoy scenery	7	0	100
exploring	5	0	100
Fishing	20	40	55
Jogging/power walking	6	0	100
Meet up with friends	3	67	33
Other, please detail:	1	0	100
Outing with family	17	0	100
Picnicking	1	0	100
Visiting lighthouse/Napoleonic fort	1	0	100
Walking	81	9	89

Wildlife watching	8	0	75
Total	266	11	85

3.49 Interviewees were also asked whether, "If there were to be changes to the path network in the future, what characteristics would encourage them to use new paths?". Up to three responses were taken for each interviewee, and these are expressed as the percentage of interviewees for each suggestion, as shown in Figure 14. There was a clear preference for "natural unsurfaced paths" and "sea views".

3.50 Several specific locations were named for places to which interviewees felt they would require a path. These were particularly the historical sites (5 interviewees) and the fishing sites (4 interviewees).

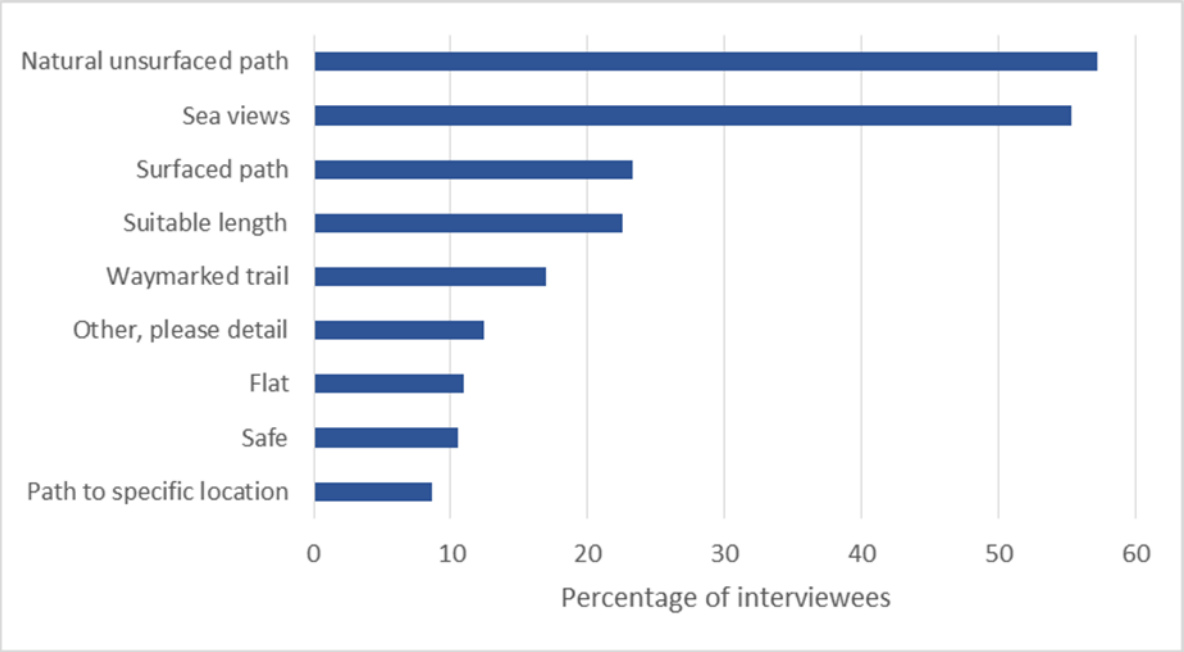


Figure 14: Percentage of interviewees recorded for each suggested factor that would make new routes appealing.

Interviewer observations

3.51 Observation made by the interviewers are often of interest as visitors often chat to them readily. Anecdotal information from the interviewers not otherwise reflected in the questionnaire data is summarized here.

- On survey days at Site 1 (car park) there were more than 12 vehicles in the car park on arrival (just before 7:00 am)
- The metalled surface was used by a small number of visitors as a route to and from north and south Brixham.
- Although many interviewees suggested naturally surfaced paths were a feature that would attract them to new routes, some visitors, particular the less-able and those with young children, particularly appreciated the metalled surface of the main track

- The open fields adjacent to the car park and woodland paths were valued by dog walkers.
- There was some suspicion about new paths from local visitors with almost all respondents saying that they would not want to be barred from any of the features that they currently enjoy such as Berry Head itself, access to the forts, the woodland walks and access to the quarry. Holiday makers were a little more ambivalent about changes.
- Several local people expressed their dissatisfaction with the car parking arrangements on site (particularly the use of a commercial company and number plate recognition technology, also narrowness of the spaces leaving little space between cars for opening and closing of doors.).
- Over the weekend, a number of vans and cars overnighted in the car park and these belonged to climbers (including deep water soloists) and anglers. The main issue with overnighting is lack of facilities as the public lavatories closed at 16.00. There was some local user concern that human fouling is becoming an issue.
- At no time during the four days was the car park full
- Other parking areas included Centry Road (requiring an extra ½ mile walk to the site) and Brixham (close to the Berry Head Hotel) for those entering via Survey Point 2 (nearest to Brixham). A number of early local dog walkers used the parking spaces in front of the ranger office.
- The Guard Room café is extremely popular with local visitors and many come to the cafe for breakfast/brunch and use it as a meeting place for friends. It is clearly an attraction and contributes to the popularity of the site. Good food, reasonable prices, dog friendliness and friendly service were cited as being responsible for its popularity and local endorsement
- Whilst on site two local users (dog walkers) were observed picking up litter early each morning. Concern was expressed by some local visitors about the amount of rubbish left by anglers at the quarry quay.
- Most people were happy with the management of the site finding the ranger staff to be friendly and courteous. It was considered to be well managed and clean.
- Some dog walkers felt that sheep and cattle had no place on site as a management tool.
- Not many people expressed an interest in the natural environment apart from hoping to see dolphins/ harbour porpoises
- Dog fouling is a problem. In recent weeks the rangers have used spray paint to highlight dog faeces and shame those that do not pick up after their dogs. Some dog walkers were offended by it but the majority of responsible dog walkers were happy to see it as they are concerned that their reputation is tarnished by the irresponsible dog walkers.
- Most holiday makers and some local people were not aware of Sharkham Point. Some local dog walkers used it as an alternative site, but others felt that it was too far to go and would require the use of a car, especially those that had to get to work in the morning. Vehicular access to Sharkham Point was also mentioned as a negative as well as the site being reported as overgrown and muddy in winter.
- One of the main negative comments was the lack of on-site information. An orientation board at the car park entrance was well used but not very clear causing visitors unfamiliar with the site to ask directions nonetheless. No orientation board is in place at or near Survey Point 2. One visitor surveyor

frequently found himself acting as a point of information, particularly during sessions 2 and 3.

- Once on site, the paths are not marked and directional signs, possibly in the form of timber finger posts, would enhance the experience of holiday makers and those visiting for the first time. Some walkers found it difficult to find access to the SW coast path.

- More information about the industrial heritage of the NNR (quarrying) and the Napoleonic forts would be welcome by some visitors.

4. Discussion

Assessment of the 5km radius zone of influence

4.1 As part of a previous report which assessed recreational impacts on Berry Head (Lake & Liley 2014), postcode data from various sources were used a assess a "zone of influence" within which an increase in housing development could result in an increase in recreational pressure on the Berry Head component of the South Hams SAC. Lake & Liley (2014) calculated travel distance bands moving away from Berry Head, rather than linear distances as these can be inaccurate given the shape of the coastline. Within each band the number of residential properties and interviewee postcodes was examined to provide an estimated zone of influence of 5 km. However this was considered a very approximate estimate, given the paucity of the data.

4.2 As part of this current report, using a more robust dataset, we used the same process to examine the zone of influence for Berry Head. The same 2 km interval travel-time distance bands were used to assess a zone of influence as in the previous report. From this we calculated the number of residential properties in each distance band (Table 18). Georeferenced interviewee home postcodes were then used to calculate the number of interviewees coming from each distance band, as shown in Table 18.

4.3 From Table 18 it was observed that a 5 km radius, as proposed in the previous report, would encompass just under half of all interviewees and approximately 75% of those interviewees visiting from home. Figure 15 plots the number of interviews per residential property in each distance band, as shown in Table 18. This shows how visitor rates change with increased travel distance to the site; a clear curve shows that visit rate declines rapidly with increased distance at first, and starts to level out beyond 8 km.

4.4 Although the analysis considers 2 km intervals and therefore a 5 km radius is not extracted, Map 5 shows that the difference between and 5 and 6 km radius includes little in the way of houses. The 5 km radius would include all of Brixham and Higher Brixham, Hillhead, and parts of Churston Ferrers. Beyond this, for example at Galmpton and Goodrington, there were few interviewees, despite a relatively high number of houses. As such, based on this data we would consider the 5km zone of influence to still be valid.

Table 18: Summary of the number of dwellings and interviewee postcodes recorded at each travel distance band away from Berry Head car park.

Km travel distance band	a) Number of residential properties per band	b) Interviewee postcodes per band	c)Cumulative percentage of interviewees	d) Cumulative percentage of interviewees visiting from home only	e) Interviewees per residential property (b/a)
0 - 2	2,300	44	17	28	0.0191
2 - 4	6,396	70	44	72	0.0109
4 - 6	640	3	45	74	0.0047
6 - 8	3,058	6	47	78	0.0020
8 - 10	6,446	4	49	81	0.0006
10 - 12	12,760	6	51	85	0.0005
12 - 14	4,206	1	52	86	0.0002
14 - 16	15,588	2	53	87	0.0001
16 - 18	15,992	0	53	87	0.0000
18 - 20	4,086	0	53	87	0.0000

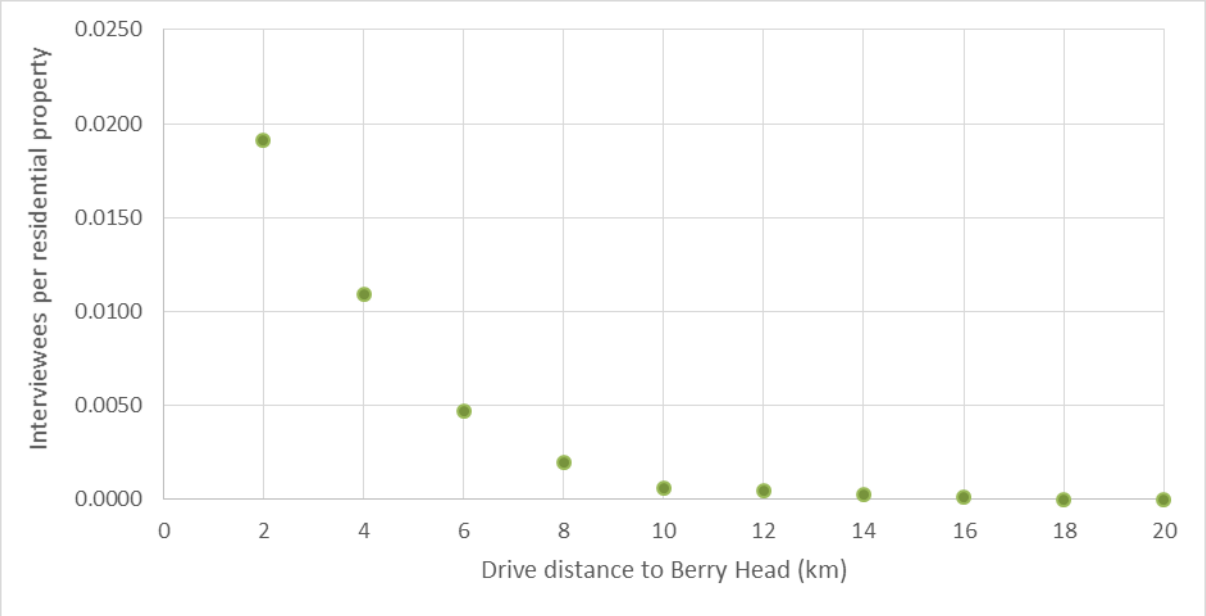
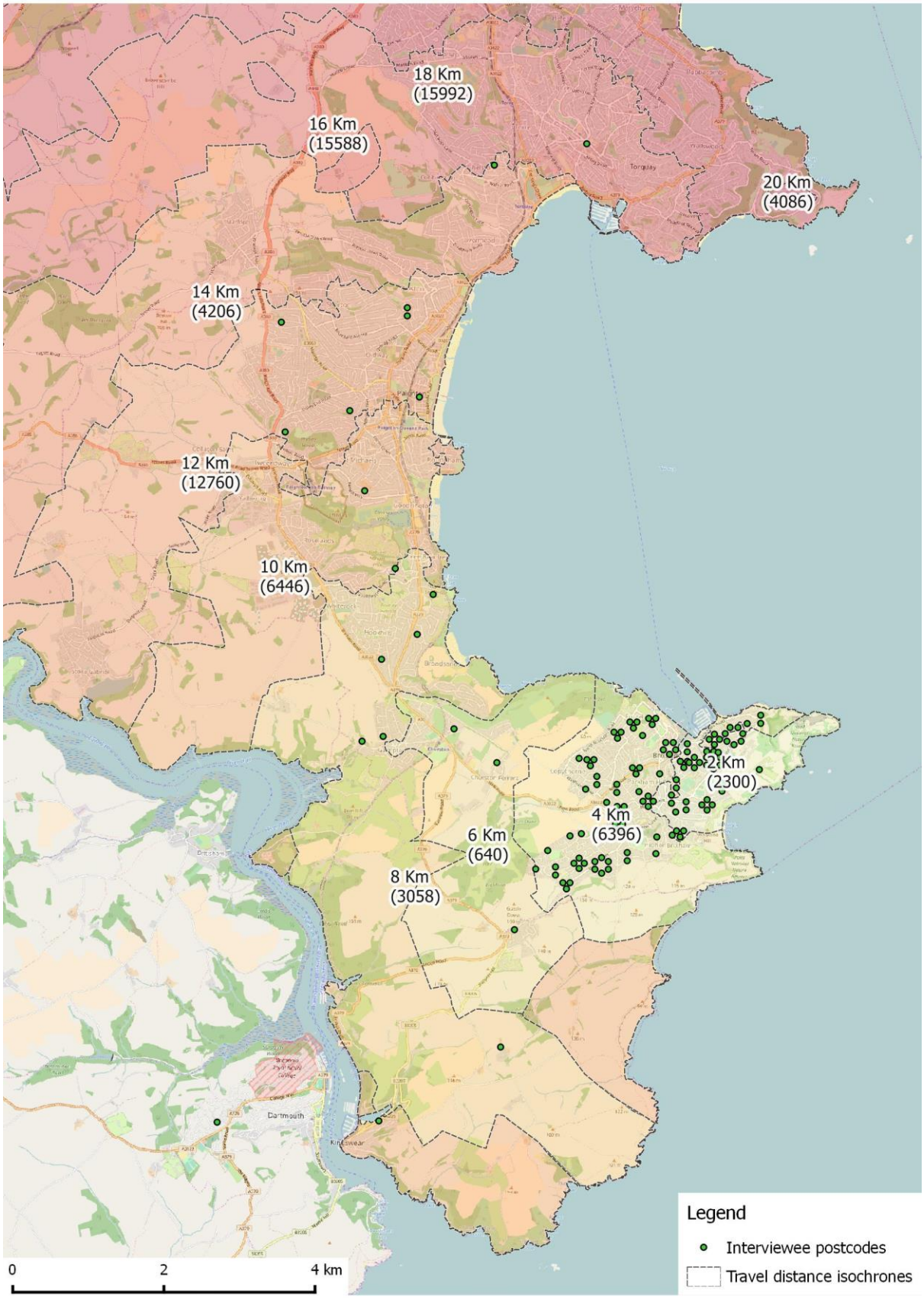


Figure 15 : Number of interviewees per residential property plotted for driving distance to the car park.

Map 5: Mapped travel distance isochrones at 2km intervals away from Berry Head car park. Numbers in brackets for each distance indicate the number of dwellings in the band.



Contains Ordnance Survey data © Crown copyright and Database Right 2015. Contains map data © OpenStreetMap contributors. Terms: www.openstreetmap.org/copyright

How visitors currently use the site

4.5 The survey data can be used to build up a picture of visitor use of Berry Head during the survey period (July and August). Most visitors were local (60%), and visited at least 2-3 times per week, although 31% of all visitors were visiting for the first time. The most common activity was dog walking, followed by walking, which together accounted for 71% of visitors. Visitors spent on average 1 hour 40 minutes on the site, and walked on average just over 2 km. Most chose the site because of the views/scenery, although "good for dog" was an important additional reason. Visitors' choice of route tended to be influenced by their existing knowledge of the site, although first time visitors were more likely to be influenced by a range of "other" reasons, the most common was "exploring". Visitor routes were focussed along the main paths to the fort, lighthouse and quarry, with many visitors also using the South Fort (29%) and the West area (39%). A high proportion (67%) went to the Headland area, and 27% down to the quarry bottom. Other areas were less heavily used.

4.6 Most visitors suggested they would be willing to consider an alternative route at Berry Head (although fewer of those visiting for fishing, climbing or to meet friends were willing to do so). Key factors that would encourage them to use a new route included a naturally surfaced path and sea views.

4.7 Around half of visitors interviewed said that they already visited other local sites (specifically Sharkham Point, Churston Cove and the Grove Woodland and Broadsands). However of those who did not visit, or only visited infrequently, few felt that any changes made at these sites would encourage them to visit the sites more. Around one in ten did not know the other sites, and similar proportions felt that improved information and parking might encourage them to visit. The current summer dog exclusion at Broadsands was a key issue for many interviewees.

Influencing visitor behaviour in the future (zoning and exclusion zones)

4.8 Recreational pressure has been recognised as an issue at the Berry Head component of the South Hams SAC (e.g. Lake & Liley 2014). Future development in the area is likely to increase this pressure. The Torbay Coast and Countryside Trust is therefore interested in if, and how, visitor behaviour may be influenced to help mitigate for this. Information from the visitor survey that may help inform key questions is discussed below. More targeted information and discussion is given in the accompanying Berry Head Visitor, Scrub and Grazing Plan[3] – this visitor survey report is limited to discussing the relevant visitor data.

Could other local sites be made more appealing to visitors?

4.9 Visitor impacts could be reduced at Berry Head if visitors were attracted to alternative sites. However, most visitors (including regular dog walkers) said they come to Berry Head because of the views. Given this, lack of interest in visiting these particular sites is

[3] Lake, S. & Underhill-Day, J. (2016) Berry Head scrub, grazing and visitor plan. Unpublished report by Footprint Ecology for Torbay Coast and Countryside Trust.

perhaps not surprising (see Photos 1-3). Although pleasant, none of the sites offer views as extensive and attractive as those from Berry Head.

4.10 Sharkham Point offers the best views of the three sites, but its difficult access and slightly neglected air make it much less appealing than Berry Head (see also comments in Appendix 2). The tall vegetation obscuring some internal views and the perception of poorly maintained paths are also detractors. The site does have features of historical interest (old iron mines and narrow gauge railway), but these may not attract visitors with an interest in the historic environment who would otherwise go to Berry Head (who were in any case only 3.7% of interviewees). It is possible that promotion and appropriate management work at Sharkham Point could make it more attractive to local dog walkers living closer to Sharkham than Berry Head, but improvements to the road access would be difficult.

4.11 The importance of the views at Berry Head is reinforced by scanning entries on Trip Adviser. Almost all entries suggest that the views and café were the key features that appealed to reviewers. The historic features are also referred to, as is the chance of seeing seabirds and cetaceans. Mention of the most important wildlife feature of the site– the limestone grassland – is very rare and limited to "spring flowers".

Photo 1: Sharkham Point - Janine Forbes (https://commons.wikimedia.org/wiki/File:Sharkham_Point_-_geograph.org.uk_-_35415.jpg), „Sharkham Point - geograph.org.uk - 35415", https://creativecommons.org/licenses/by-sa/2.0/legalcode

Photo 2 :Broadsands - Tom Jolliffe (https://commons.wikimedia.org/wiki/File:Low_tide_at_Broadsands_Beach_-_geograph.org.uk_-_359850.jpg), „Low tide at Broadsands Beach - geograph.org.uk - 359850“, https://creativecommons.org/licenses/by-sa/2.0/legalcode

Photo 3: Churston Cove - Chris Talbot (https://commons.wikimedia.org/wiki/File:Brixham_-_Churston_Cove_-_geograph.org.uk_-_1624894.jpg), „Brixham - Churston Cove - geograph.org.uk - 1624894“, https://creativecommons.org/licenses/by-sa/2.0/legalcode)

Are visitors likely to be willing to change their route at Berry Head?

4.12 Evidence from the visitor surveys suggests that most visitors would be willing to try different routes, particularly if these were naturally surfaced and offered sea views. However this is less likely to be the case for people taking part in activities in a particular location such as fishing and climbing, who may just wish to reach it by the quickest and easiest route. Given the presence of the metalled track, it is unlikely that there would be any change to the route to the quarry bottom and entrance to the fort (on the way to the headland) in any case. Small-scale manipulation of routes on the headland plateau would need to take into account that the main desire of most visitors is likely to be to walk straight to the end.

4.13 For first time visitors, many of whom may be exploring, easily accessible information on site and trails may influence their route. For example, the need for an orientation board near survey point 2 (the viewpoint) and improved information at the car park were highlighted by the visitor surveyors, who often found themselves providing information to first-time visitors. Finger boards to key features and also to the SW coast path were also suggested.

4.14 Visitors walked on average 2.1 km. While this may partly be an artefact of the shape and size of the site, our experience from numerous visitor surveys suggest that this is about normal for dog walkers (e.g. a recent survey in Ashdown Forest, a more extensive site, found average distance to be around 2.5 km). Therefore any new routes would need to allow for a walk of around this length.

4.15 Dog walkers did not mention proximity to cliffs as a factor influencing their choice of route (although this was mentioned on trip adviser) suggesting that, within reason, this is not necessarily a constraint. However, as the cliff slopes support some of the best flora, it is unlikely that new routes will be promoted in these locations.

4.16 Nearly 75% of dogs were off the lead. Given that “good for dog” was an important additional reason that people visited Berry Head, dogs on leads restrictions might be one way of influencing visitor routes.

Is there potential to use zoning/limited access areas?

4.17 Map 4 shows how most of Berry Head is currently used, with the exception of the cliff slopes (including the land below the quarry floor). Other areas that are not used include patches of dense scrub (e.g. between the Rabbit Warren and Gillard Road), much of the central paddock area (with just a couple of routes crossing it) and the scrub north of the car park, to the west of the tracks. Apart from these areas, which are currently of more limited conservation interest, the data suggest that visitors are accustomed to using almost all of the site. Local interviewees already familiar with the site expressed concern that they would lose access to key areas including the headland, the woodland, the forts and the quarry. Any potential zones/exclusion areas would need to be carefully designed (e.g. not in key areas, perhaps screened by scrub,) and implemented (e.g. with visitor engagement work) to be successful.

What is the best way of engaging with visitors to promote appropriate behaviour?

4.18 The majority of visitors are local, although about a third are likely to be visiting from further afield. This suggests that measures targeted at local residents will be effective, and that efforts towards building up a good long-term relationship with visitors will be worthwhile. However material aimed at first time visitors is also needed. A few were visiting because they had been told about Berry Head at their accommodation or had picked up a leaflet, while a small number found routes on the internet[4]. Appropriate promotional materials distributed to local accommodation providers and available online may also have some affect.

4.19 In terms of the location of fixed information (boards and signs), at least one third of visitors arrived from Brixham along the coast path, and this included holiday makers in addition to locals. This would therefore be a good location for information and interpretation materials in addition to the main car park and visitor centre. There was no difference in the distance travelled to reach the site between the two survey points, suggesting that people living close to the site and those travelling from afar both use the main car park and walk into the site from Brixham.

4.20 Although visitors were not specifically asked, it would appear that not many visitors were aware of the importance of the site for wildlife. Very few visitors listed wildlife watching as a main or additional reason for visiting, although two interviewees said they hoped to see dolphins or porpoises, one mentioned geology and another the spring flowers. There is clearly scope to increase understanding of the site as a nature reserve among types of visitors.

4.21 A high proportion of dog walkers and joggers visit the site in the early morning or evening, suggesting that, if on-site staff presence forms part of visitor engagement work, this needs to be extended, for example before 9 am and after 5 pm

5. Appendix 1

Other reasons that interviewees gave for visiting Berry Head rather than any other local site:

A bit busy in the summer
A national treasure
Also interested in seasonal photography
Clean
Cooler by coast
Deep water fishing
Dog friendly *x2*
Dog friendly, disabled friendly

[4] E.g. http://www.gps-routes.co.uk/routes/home.nsf/RoutesLinksWalks/berry-head-country-park-walking-route
http://www.devon.gov.uk/walk39
http://pinns.co.uk/devon/brixham.html

Dog friendly, sociable place to come
Dog friendly, traffic free
Drawn by rhino trail
Exploring the area, day trip from Bristol
Flat terrain
Found everything interesting
Free to explore, history, saw berry head in a brochure
Fresh air
Good climbing and fishing
Good deep water solo cliffs
Good disabled access
Good fishing, easy access
Good for picnics
Good seating on site, signage could be much better
Good surfaces
Historical aspect *x10*
Interested in the geology
Interested in weather conditions
Knew about the site
Leaflet on Brixham mentioned berry head
Like dry paths underfoot in winter
Like it in winter when it is quiet
Like the coastal walks
Like to meet people
Like walking coastal paths
Long walks available, especially along SW coast path
No restrictions
Not commercialised
Not wet underfoot on winter
Near to campsite
Open air
Open space
Part of coastal path
Recce to find the start of the SW coastal path from the Brixham hotel
Recommended by tourist information on Brixham
Returning to old haunts
Safe for the dogs, fresh
Sense of space *x2*
Sociable place to come *x4*
Somewhere to go
Spur of the moment
Still natural
Told about the site
Varied habitats
Very clean and well kept, good parking and toilet facilities
Visitors guide recommended site

Wanted to walk part of the coastal path
Well maintained
Well organised
Wide open space

6. Appendix 2

Other changes/issues that interviewees highlighted at alternative sites to Berry Head:

Churston Cove

Better access
Better access - a bit rocky
By kayak
Husband has mobility problems can't get there
Less attractive, also overgrown
Muddy
Muddy paths
Path always muddy
This is more convenient
Too many dogs
Too muddy
Too steep
Would have drive
Would need to use a car, and would need better parking

Sharkham

Coastal path could be improved, dangerous for older people.
Don't like to have to drive
Here is a personal preference and also have a car parking seasonal pass
Just a little bit further afield
Lane overgrown
Less convenient
More difficult to get to
Narrow lane
Not easy access
Not so often because of the adders
Not such good views, a bit overgrown
Only distance from Brixham, would need to use the car
Paths not well maintained
Poo bin has broken lid that someone will cut themselves on. It doesn't stop me going
Problem with Japanese knotweed. There is a lot of industrial history associated with sharkham point, iron ore workings, old buildings left
Rarely, steepness of coastal path
Rarely go as less convenient
Road down too bumpy
Sheep mean dog on lead

Sharkham cont'd

This site is more accessible
Too remote to go there on own
Tried to visit but couldn't find it
Usually with company
Will be visiting
Will be visiting later today
Will visit

Broadsands

Can't park on the road anymore. Include in trust free parking & more people will visit
Dig for bait
Dog too young
Dogs not allowed/not allowed in summer *x 28*
Have to pay for parking, this site is handy
In winter only
Just for a walk on the beach
More for children
Not the beach
Only in the winter *x 4*
Planning on visiting
Too far to go by bike, nicer areas closer by
Too many dogs at Broadsands
Winter months only
Would have to drive

7. Appendix 3

Other factors influencing interviewees choice of route:

Asked someone about the best way here
Avoid cliff edges
Butterflies
Café x8
Can get dog off the lead more quickly by following this route
Dependent on livestock/cattle x2
En route to Brixham from Upton campsite
Exploring/wandering around x10
Exploring, hoping to see dolphins
Following footpath network
Go on quieter routes
Go the headland to look for porpoises
Google
Health problems dictate distance
Heard about it from holiday cottage in Brixham
Heard about the area from a friend
In the sun
Just wanted to visit the coast
Like quieter areas
Like the wooded area, like to go to the head
Live close to the path, walking from one side of Brixham to the other
Longer walk on Saturdays
Looked on the internet
Looking at wildlife
Make good use of the site, cycling, use the cafe, full use of path network
Meeting friends at the cafe
Meeting friends only location both parties knew
Notified about a dog that can be vicious so avoiding it
Only collecting glasses
Planned to come here
Recce and wildlife watching
Recently discovered new route
Recommendation from hotel
Rekindling memories x2
Safest route for dogs to Brixham
Short walk this morning
Suitable for bikes
Tend to make spur of the moment decisions
Through the woodland
Tides
To rainbow bridge - good climbing area

Too hot to walk for long
Via cafe and south fort
Walk into Brixham
Walking in cooler afternoon
Want to watch for dolphins
Wanted to visit the head and woodland
Wildlife photography
Woodland, shady areas