



South East Devon Visitor Survey 2020-2021

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Summary

This report has been commissioned by the South East Devon Habitat Regulations Partnership and presents the results of visitor surveys at a selection of countryside sites in south east Devon, namely Dawlish Countryside Park, the Exe Estuary (including Dawlish Warren) and the Pebblebed Heaths. The aim of the survey was to understand current visitor patterns and behaviour, including where visitors come from, and to assess the awareness and effectiveness of current access management.

Visitor surveys were undertaken between February 2020 and October 2021, and included both counts of the number of visitors and face-to-face interviews with a random sample of visitors. Survey methods were broadly consistent with those used in previous surveys (in 2010 on the Exe Estuary and in 2015 on the Pebblebeds). 192 hours of survey effort were undertaken in total, equally spread across 16 hours survey points (6 on the Pebblebeds, 5 on the Exe Estuary and 1 at Dawlish Countryside Park).

Key findings from the counts were:

- 6,066 people were seen during the 192 hours of survey.
- Counts included 2496 dogs (i.e. 0.41 dogs to every person).
- Goat Walk at Topsham was the busiest survey point (72.6 people recorded per hour).
- Rates for people 'entering' (i.e. starting their walk) ranged from 8.4-17.7 people per hour at the Pebblebeds survey points, from 2.6-37.3 people per hour at the Exe survey points, and 18.6 people per hour at the Dawlish Countryside Park.

A total of 499 interviews were conducted, and key findings from these included:

- 93% of interviewees were visiting directly from home and 5% were on holiday.
- Locations with high proportions of interviewees on holiday included Dawlish Warren (10%) and the Exmouth Duck Pond (15%).
- Dog walking was the most commonly stated main activity (57% of interviewees) and a further 8% of interviewees had a dog with them while undertaking a different main activity. The only survey points where dog walking was not the most commonly stated activity were Powderham and Goat Walk. The sites with the most dog walkers were Dawlish Countryside Park, Dawlish Warren, the Warren and Model Airfield.
- Walking was the next most commonly stated main activity (30% of interviewees). It was the most common main activity at Goat Walk, Powderham, Joney's Cross and Woodbury Castle (the latter two locations on a par with dog walking).
- 13% of interviewees gave a main activity type that was not dog walking or walking and these included a range of activities such as cycling, running, wildlife watching, watersports etc. Notable locations for these other activities included Powderham (22% of interviewees cycling, 14% bird/wildlife watching), Joney's Cross (16% bird/wildlife watching) and Exmouth Duck Pond (10% windsurfing, 8% kitesurfing).

- Interviewees had been visiting the locations where interviewed for many years, for example those visiting for over 10 years accounted for over 50% of interviewees at the Pebblebed Heaths and the Exe Estuary and 70% at Dawlish Warren. 45% of those interviewed at Dawlish Countryside Park had been visiting for at least 3 years.
- Visits were typically relatively short, and duration varied by survey location. The mean visit duration was around 76 minutes. Overall, 57% of interviewees at the Pebblebeds, 52% of interviewees at the Exe and 73% of interviewees at Dawlish Countryside Park had spent less than an hour on site.
- On average interviewees made around 24 visits per year to the location where interviewed. Those who visited more than once a day, daily or most days accounted for 28% of interviewees at the Pebblebeds, 26% at the Exe Estuary and 49% at Dawlish Countryside Park.
- 68% of interviewees visited equally all year round and for those that did indicate a preferred season there was little difference between seasons (e.g. 12% stated they tended to visit more in the summer, 11% in the spring, 10% in the winter and 8% in the autumn).
- 491 interviewee routes were mapped as part of the interview.
- Mapped routes on the Exe showed that 36% of interviewee routes passed through intertidal areas on the Exe Estuary, notably at Dawlish Warren (57%), Exmouth Duck Pond (59%) and Lympstone (71%).
- The length of interviewees' routes ranged from 170m to 32.73km, with a median length of 2.27km. The median route lengths on the Pebblebeds and the Exe were similar (2.46km and 2.59km respectively). At Dawlish Countryside Park the median route length was 1.68km.
- Key factors that influenced interviewees' choice of route included previous knowledge of the area (22%), weather (16%) and time (13%).
- The key factor that influenced interviewees' choice of where to go was that it was close to home (28%). At Dawlish Countryside Park the most common reason was the ability to let their dog off the lead (37%). On the Exe Estuary, the scenery was also a particularly important factor, given by 32% of interviewees.
- Interviewees cited a range of alternative locations that they would have visited instead of the location where interviewed that day, and these responses highlighted a crossover between the Exe Estuary and the Pebblebeds (7% of those interviewed on the Exe would have gone to the Pebblebeds instead and 10% of those interviewed on the Pebblebeds would have gone to the Exe Estuary instead).
- Away from the Exe Estuary and Pebblebed Heaths, the most common named alternatives were Dawlish Countryside Park (an alternative for 8% of interviewees at the Exe Estuary sites), Haldon Forest (an alternative for 3% of Exe visitors and 2% of Pebblebed Heath visitors) and Dartmoor (an alternative for 4% of Exe visitors and 1% of Pebblebed Heath visitors).
- For those interviewed at Dawlish Countryside Park, 31% would have visited the Exe Estuary instead and a further 16% another coastal location away from the Exe. The most commonly cited single alternative was Dawlish Warren (19% of interviewees there).
- 59% of interviewees at the Pebblebeds and 76% of interviewees at the Exe Estuary were aware that the site had environmental protection, but only 43% and 42% respectively were able to name or describe what these were.

- 84% of interviewees at the Pebblebeds and 78% of interviewees at the Exe Estuary were able to name at least one group of species or habitats that the site is important for.
- A third of interviewees (33%) at the Pebblebeds and a quarter of interviewees (25%) on the Exe Estuary had met one of the rangers or mitigation officers.
- Awareness about codes of conduct was lower on the Exe Estuary, where 58% were unaware of codes, compared to 22% on the Pebbebed Heaths.
- 30% of dog walkers interviewed had heard of, or were members of “Devon Loves Dogs” and 5% of dog walkers were members of the organisation.
- 18% of interviewees at the Exe Estuary had seen the patrol boat and 53% said they were aware of the refuges. Notably with the refuges awareness was higher in the vicinity of them (e.g. 85% of interviewees at Exmouth Duck Pond were aware of them).
- The mean linear distance from the interviewee’s home postcode to the survey point at which they were interviewed was 16.7km and the median distance was 5.0km (all interviewees at all sites). Three quarters of all interviewees lived within 9.9km of the survey point at which they were interviewed.
- For the Pebblebed Heath interviewees the median distance from the interviewee’s home postcode to the survey point was 5.3km and 75% lived within 8.5km. For the Exe Estuary sites the median was 4.2km and 75% lived within 15.4km and for Dawlish Countryside Park the median was 3.2km and 75% lived within 5.9km.

Comparisons with previous surveys (on the Exe Estuary in 2010 and Pebblebed Heaths in 2015) show marked increases in visitor numbers and these appear to be across all locations. While the numbers of dogs has increased the increases seem disproportionately to involve those without dogs. There were no significant differences in the distances between survey point and home location, suggesting there has been no change in how far people are travelling.

The data provide a snapshot of use at the given survey times. The surveys were started before the Covid pandemic, survey work was paused and resumed towards the end of the pandemic. This will clearly have an impact on visitor use and patterns of access. The implications of the results are discussed in terms of the mitigation measures and access management measures in place at the sites.

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1. Introduction

Overview

- 1.1 This report has been commissioned by the South East Devon Habitat Regulations Partnership and presents the results of visitor surveys carried out in 2020 and 2021 at a selection of countryside sites in south east Devon. The aim of the survey was to understand current visitor patterns and behaviour, including where visitors come from, and to assess the awareness and effectiveness of current access management.

The sites included in the survey

- 1.2 The survey included the following sites, which all lie in close proximity:
- The East Devon Pebblebed Heaths,
 - The Exe Estuary,
 - Dawlish Warren,
 - Dawlish Countryside Park.
- 1.3 The East Devon Pebblebed Heaths, the Exe Estuary and Dawlish Warren are all internationally important for nature conservation and are afforded strict protection.
- 1.4 The East Devon Pebblebed Heaths is the largest block of lowland heath in Devon, and it is internationally important for its Northern Atlantic wet heaths and extensive areas of lowland European dry heaths. The site is a Special Area of Conservation (SAC) and classified as a Special Protection Area (SPA) for the breeding bird interest. The Exe Estuary lies to the west of the heaths and is of international importance for wintering and migratory wetland birds, for which it is classified as an SPA and listed as a Ramsar site. Dawlish Warren is a geomorphologically important sand spit which protects the mouth of the Exe Estuary. It lies within the Exe Estuary SPA and qualifies as an SAC for the dune habitats and presence of Petalwort, a liverwort.
- 1.5 Dawlish Countryside Park is a relatively new countryside site, created as a 'SANG' (Suitable Alternative Natural Greenspace), a dedicated space to provide for increasing levels of access in the area.

Impacts and importance of access

- 1.6 A challenging issue for UK nature conservation is how to respond to increasing demand for access without compromising the integrity of protected wildlife sites. Areas that are important for nature conservation are often important for a range of other services, including the provision of space for recreation for an increasing population. Such recreation space can be used for a wide variety of activities, ranging from daily dog walks to competitive adventure and endurance sports.
- 1.7 Visits to the natural environment have shown a significant increase in England as a result of the increase in population and a trend to visit the countryside more (O'Neill, 2019). The issues are particularly acute in southern England, where population density is highest. The Covid-19 pandemic has further had a marked effect on how people use local greenspaces and many locations across the UK have seen a marked increase in recreation use during the pandemic (Burnett et al., 2021).
- 1.8 There is a strong body of evidence showing how increasing levels of access can have negative impacts on wildlife. Issues are varied and include disturbance, increased fire risk, contamination and damage (for general reviews see: D. Liley et al., 2010; Lowen et al., 2008; Ross et al., 2014; Underhill-Day, 2005). The issues are not, however, straightforward. It is now increasingly recognised that access to the countryside is crucial to the long term success of nature conservation projects, for example through enforcing pro-environmental behaviours and a greater respect for the world around us (Richardson et al., 2016). Access also brings wider benefits to society that include benefits to mental/physical health (Keniger et al., 2013; Lee and Maheswaran, 2011; Pretty et al., 2005) and economic benefits (ICF GHK, 2013; ICRT, 2011; Keniger et al., 2013; The Land Trust, 2018). Nature conservation bodies are trying to encourage people to spend more time outside and government policy is also promoting countryside access in general (e.g. through enhancing coastal access).

Legislative context

- 1.9 The designation, protection and restoration of European wildlife sites is embedded in the Conservation of Habitats and Species Regulations 2017, as amended, which are commonly referred to as the 'Habitats Regulations'. Importantly, the most recent amendments (the Conservation of Habitats and

Species (amendment) (EU Exit) Regulations 2019¹) take account of the UK's departure from the EU.

- 1.10 The Regulations provide strict protection for European sites and this extends to local plans. Regulation 105 *et seq* addresses the assessment of local plans and there is also Government Guidance on the interpretation and application of the Regulations which includes local plans². Local planning authorities, as public bodies, are given specific duties as 'competent authorities'. A competent authority should only approve a project or give effect to a plan where it can be ascertained that there will not be an adverse effect on the integrity of the European site(s) (or exceptionally, if there is overriding public interest and no alternatives).
- 1.11 Whereas a single dwelling is unlikely to have implications in terms of visitor use, large but gradual changes in housing over a wide area over a number of years may well result in marked changes in local access levels and have impacts for European sites.

Mitigation for housing growth

- 1.12 A strategic approach to mitigation was established in 2014, developed with partnership working between East Devon, Exeter and Teignbridge local planning authorities, with input from a number of wider organisations involved in the protection and management of the three European sites. The South-east Devon European Site Mitigation Strategy (Liley, Hoskin, Lake, Underhill-Day, & Cruickshanks, 2014) set out a zone of influence (i.e. the evidence based zone within which it is deemed that mitigation measures are required) and series of mitigation measures that worked together to provide robust protection for the three European sites.
- 1.13 The strategic approach was designed in light of the 30,000 new dwellings anticipated within the zone of influence and planned to run over the lifetime of the relevant Local Plans, and then beyond as a continual rolling programme, but with interim reviews. Since 2014, the strategy has been

¹ The amending regulations generally seek to retain the requirements of the 2017 Regulations but with adjustments for the UK's exit from the European Union. See Regulation 4, which also confirms that the interpretation of these Regulations as they had effect, or any guidance as it applied, before exit day, shall continue to do so.

² Habitats regulations assessments: protecting a European site. Defra and Natural England. 24 February 2021. <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site> (accessed 4 March 2021)

progressed by the three local planning authorities and dedicated staff are in place to facilitate implementation.

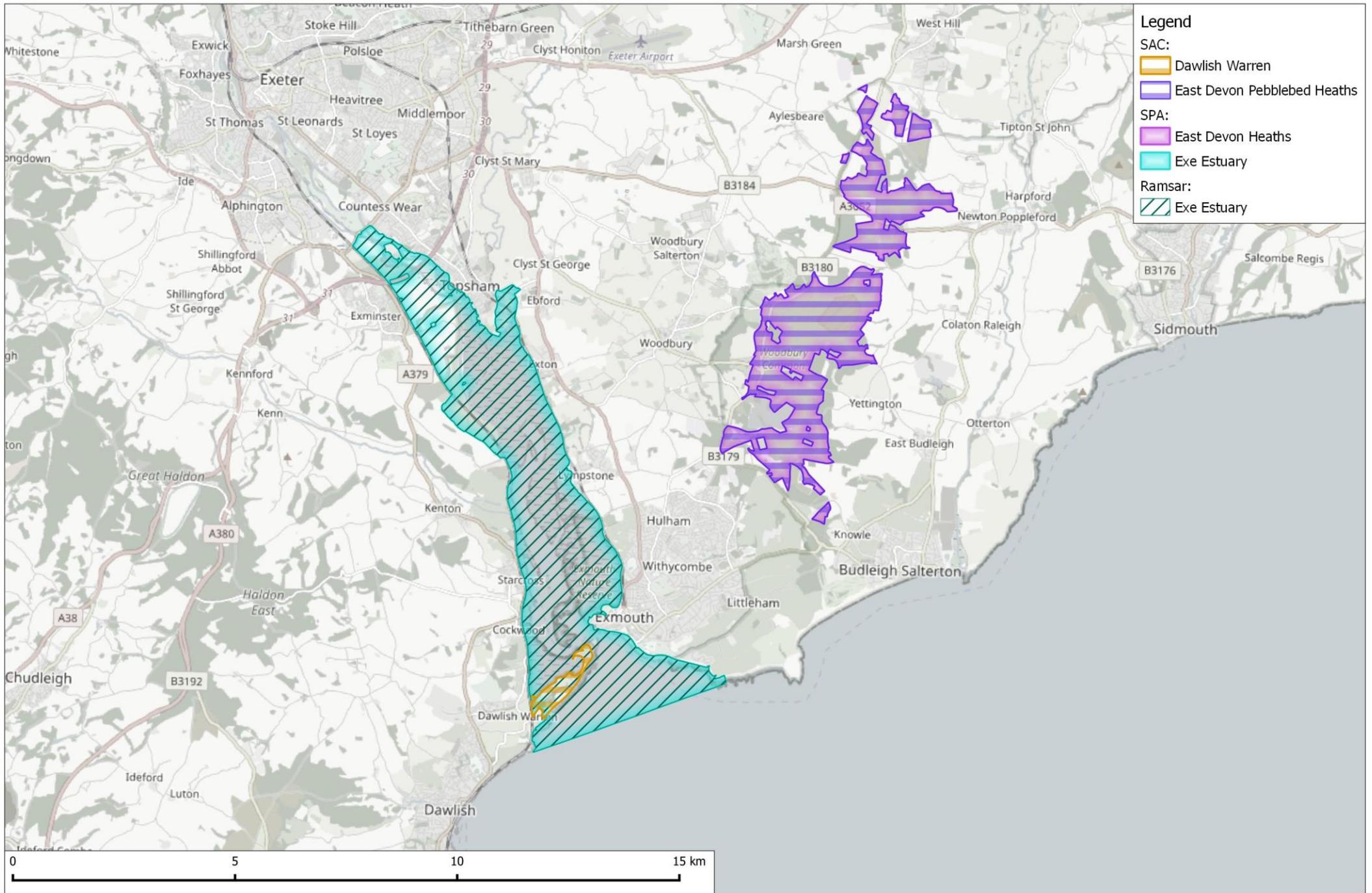
Previous visitor survey work

- 1.14 Previous visitor surveys were carried out on the Pebblebed Heaths in 2015 (Liley et al., 2016) and in 2011 (Ecology Solutions, 2012). An on-site visitor survey was carried out on the Exe Estuary in 2010 (D Liley et al., 2010) and a household postal survey was also conducted in 2010 across East Devon, Exeter and Teignbridge (Cruickshanks and Liley, 2012).

Reasons for this survey

- 1.15 Monitoring is essential to ensure the successful delivery of the mitigation work, acting as an early warning system and providing the feedback to hone mitigation. Monitoring is necessary to ensure approaches are working as anticipated and whether further refinements or adjustments are necessary. Monitoring will inform whether resources can be better allocated, and will pick up changes in access patterns (for example in response to changes in climate, new activities or in response to changes on the sites themselves). The monitoring is therefore aimed at ensuring mitigation effort is focused, responsive to changes in access and that money is well-spent and correctly allocated. Monitoring is therefore integral to the mitigation 'package'.
- 1.16 In addition, monitoring is necessary for the relevant local authorities to demonstrate that measures have been effective and costs to developers have been proportionate.
- 1.17 This survey was commissioned to update the information from previous studies (in some cases nearly 10 years old) and provide information to help inform future mitigation delivery. Given the major effect of Covid on travel patterns and use of outdoor spaces, the survey will identify emerging trends and patterns of use.

Map 1: Relevant European sites.



2. Methods

Overview

- 2.1 Visitor surveys were undertaken between February 2020 and October 2021, and included both counts of the number of visitors and face-to-face interviews with a random sample of visitors. Survey methods were broadly consistent with those used in previous surveys.

Survey locations

- 2.2 Survey work took place at 12 locations: 6 on the Pebblebed Heaths, 5 on the Exe Estuary, and Dawlish Countryside Park. All except Dawlish Countryside Park and Model Airfield had been included in previous visitor surveys.
- 2.3 Survey locations are summarised in Table 1 and Map 2. The number of survey locations was determined by the available budget and then survey locations were selected to provide a reasonable geographic spread and to include range of different types of location. All survey locations (except for Dawlish Countryside Park) have direct access to the SPA and/or SAC. All were based either in/near popular car parks, or at other key access points such as slipways.

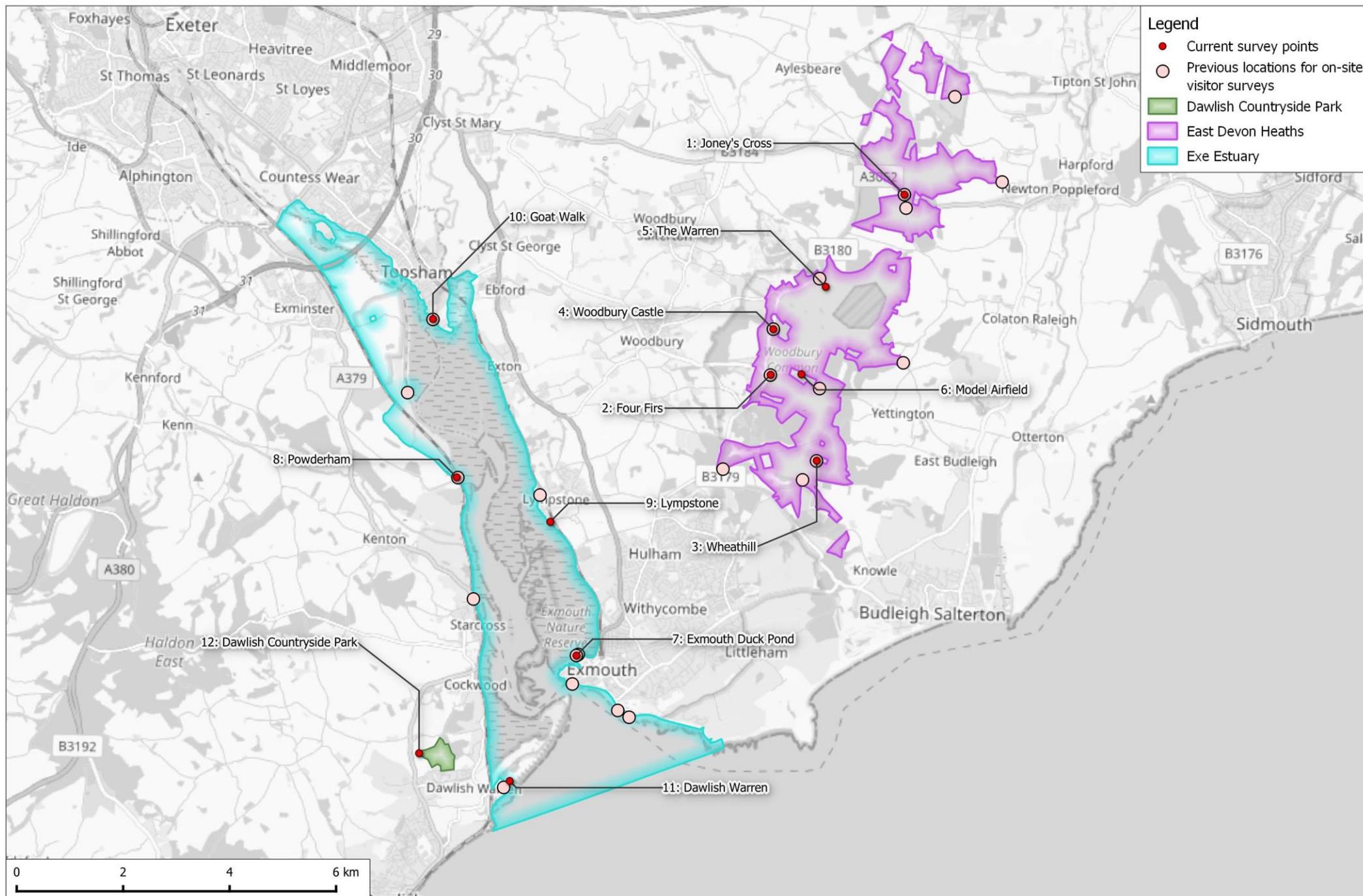
Table 1: Summary of the survey points used. Colours used show the 3 broad regions: purple for the Pebblebeds, blue for the Exe Estuary (including Dawlish Warren) and green for the SANG. The final column indicates which locations were included in previous visitor surveys.

Region	Survey point ID and name	Grid reference	Description	Previous surveys
Pebblebed Heaths	1: Joney's Cross	SY05698972	Based in the car park	2011, 2015
	2: Four Firs	SY03188637	Based in the car park	2015
	3: Wheathill	SY04048477	Based in the car park	2015
	4: Woodbury Castle	SY03238721	Based in the car park	2011, 2015
	5: The Warren	SY04218800	Track junction to south of The Warren car park * ¹	2011, 2015
	6: Model Airfield	SY03768638	Based in the car park	-
Exe Estuary including Dawlish Warren	7: Exmouth Duck Pond	SX99538114	Roaming along shoreline	2010
	8: Powderham	SX97288445	At start of Exe Estuary Trail on Church Road near the church	2010
	9: Lypstone	SX99048363	Top of slipway on corner of Sowden Lane * ²	2010
	10: Goat Walk	SX96848740	Northern end of Goat Walk, by the Strand	2010
	11: Dawlish Warren	SX98287880	On promenade just past the first groyne	2010
SANG	12: Dawlish Countryside Park	SX96587931	By the noticeboards inside entrance from car park	-

*¹ In previous surveys, the survey point at The Warren was at the car park itself, but this time was moved to a nearby path junction, in order to intercept a wider range of visitors.

*² In the previous survey, the survey point at Lypstone was further north, by the sailing club.

Map 2: Location of current and previous surveying locations.



Interviews

- 2.4 Face-to-face interviews were conducted with a random sample of visitors, by approaching the next person seen by the surveyor. Only one person was interviewed per group and no minors (under 18s) were interviewed.
- 2.5 The questionnaire design was based on previous surveys but with some additional questions to ensure that the requirements of the brief were met regarding visitor awareness of nature conservation and the effectiveness of mitigation measures. A copy of the questionnaire is provided in Appendix 1. It included some site-specific questions, for example visitors to the Pebblebed Heaths and the Exe Estuary were asked about their awareness of the nature conservation value of the site they were visiting, whereas these questions were not asked at Dawlish Countryside Park.
- 2.6 The questionnaire was designed using Snap Surveys software and was conducted using tablets running the Snap Mobile Anywhere app. As part of the interview, visitors were asked what route they had taken on site (or were planning to take). This was captured by the surveyor on a paper map, using a unique reference number to match it to the corresponding questionnaire data, and these routes were subsequently digitised into GIS for analysis.

Visitor counts

- 2.7 Alongside the interview data, surveyors maintained a tally of all people seen, recording the number of groups (of any size), individuals, minors, dogs and cyclists. These counts allow a comparison across survey points in terms of footfall, and allow the proportion of visitors that were interviewed at each location to be determined.
- 2.8 Separate tallies were maintained, as relevant, at each survey point for those entering (e.g. parking and starting their walk at the survey point), leaving (e.g. someone returning to the survey point having completed a walk) or passing through (those clearly passing the surveyor mid-way through their visit, e.g. those on a long run or bike ride).

Timings

- 2.9 Each survey point was surveyed at a relevant time of year, i.e. when the wildlife interest was likely to be present and potentially vulnerable. The Pebblebed Heath locations were surveyed between April and June (representing a time when breeding birds are present), and the Exe Estuary

locations (including Dawlish Warren) were surveyed between mid-September and March (reflecting the period when wintering/passage birds are present). Exmouth Duck Pond was surveyed whilst the nearby wildlife refuge was active. Dawlish Countryside Park was surveyed in June and August (reflecting times when use is likely to be relatively high). The dates surveys were conducted at each site are given in Table 2.

Table 2: Survey dates for each location

Survey point ID and name	Weekday	Weekend
1: Joney's Cross	10 May 2021	24 April 2021
2: Four Firs	7 May 2021	20 June 2021
3: Wheathill	18 June 2021	25 April 2021
4: Woodbury Castle	23 April 2021	9 May 2021
5: The Warren	26 April 2021	19 June 2021
6: Model Airfield	21 June 2021	08 May 2021
7: Exmouth Duck Pond	27 October 2021	19 September 2021
8: Powderham	27 February 2020	29 February 2020
9: Lympstone	13 March 2020	14 March 2020
10: Goat Walk	28 February 2020	1 March 2020
11: Dawlish Warren	7 February 2020	8 February 2020
12: Dawlish Countryside Park	4 August 2021	13 June 2021

2.10 Each location was surveyed for 16 hours, with 8 hours on a weekend day and 8 hours on a weekday. Survey days were split into set 2-hour sessions to capture usage across daylight hours. The timings of these were adjusted for different times of year as follows:

- February: 0700-0900, 0930-1130, 1230-1430, 1500-1700
- March and October: 0700-0900, 1000-1200, 1300-1500, 1600-1800
- April to September: 0700-0900, 1030-1230, 1400-1600, 1700-1900

2.11 There was one exception to the timings above, where the surveyor arrived late due to vehicle breakdown. This was at The Warren, and the first session was instead 0800-1000. The survey effort was therefore the same and should be comparable.

Weather

2.12 The weather during fieldwork was varied since it covered several seasons (see Figure 1 for a summary of temperature and rainfall). The only location that was potentially affected by wet weather was Model Airfield, which had

rainfall throughout almost all sessions, however this was mostly drizzle rather than heavy rain.

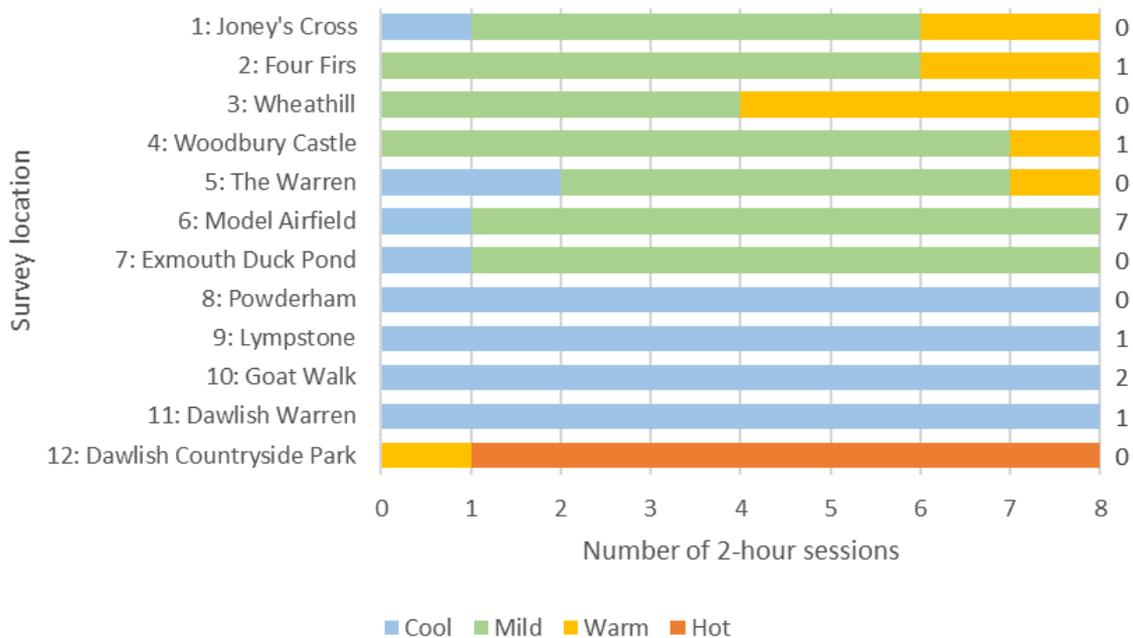


Figure 1: Summary of the temperature during each survey session, as categorised by the surveyor. The numbers on the right-hand side indicate the number of sessions (out of 8) where there was rainfall for over half of the session.

Coronavirus restrictions

2.13 The coronavirus pandemic and associated restrictions put a stop to fieldwork in March 2020 and it was not resumed until April 2021 when the majority of restrictions had eased. At the time of fieldwork restarting, people were once again allowed to travel outside of their local area and meet in groups of up to six people. Initially, overnight stays were restricted to self-contained accommodation but within a few weeks all overnight accommodation was allowed to re-open. See Figure 2 for a timeline covering some of the key dates during this period. The figure shows how the survey window in the April/May period of 2021 coincided with the lifting of restrictions.

2.14 An additional question was added to the questionnaire in 2021 (Q7) to find out if interviewees' visit patterns had changed due to the pandemic, for example, if they were visiting more or less frequently now.

- 2.15 For fieldwork in 2021, some adaptations were made to minimise the risk of transmission between surveyors and interviewees. Surveyors followed the social distancing guidelines current at the time (2m apart, or 1m with risk mitigation where 2m was not viable) and wore a face covering or visor. In order to map routes, the surveyors had large (A3) laminated versions of their paper maps and were able to show these to the interviewee who could then broadly indicate their route with their finger (refraining from touching the laminated map).

South East Devon Visitor Survey 2020-2021



Figure 2: Summary of key coronavirus restrictions affecting outdoor recreation in early 2021.

3. Results: visitor counts

Total footfall

- 3.1 Visitor counts involved the tallies maintained during the survey times. Total footfall is the summed count of people recorded passing the survey point (i.e. the combined sum of those entering, leaving or passing through at the survey point). It should be noted that at the busiest sites the tally count is approximate, as the surveyor noted they struggled to maintain an accurate count while interviewing.
- 3.2 Over the 192 hours of survey, the tally counts recorded a total footfall of 6,066 people (Appendix 2). This equates to an overall average 31.6 people moving through the survey points per hour. There were also 2,496 dogs, roughly 0.41 to every 1 person, and 10% of the people were minors (585) and 5% of people were on bikes (318).
- 3.3 There were marked differences between survey points and sites, with the highest value of 72.6 people per hour at Goat Walk, and just 5.4 people per hour at Lympstone. Taking the average for each site, the values were 25.4 people per hour at the Pebblebeds (6 survey points), 37.6 at the Exe Estuary sites including Dawlish Warren (5 survey points) and 38.8 at the SANG (1 survey point).
- 3.4 From the total footfall count of 6,066, the average group size was as 1.9 people per group. This ranged from 2.2 at Joney's Cross and Dawlish Warren to 1.4 at Model Airfield. Average group size was 1.7 at the SANG and 1.9 at both the Pebblebeds and Exe Estuary.
- 3.5 Occasionally large, organised groups were observed with each involving 20-50 people. For example, running clubs were seen meeting at Joney's Cross and at The Warren, a group of marines passed through at The Warren and the City of Exeter hash house harriers were at Wheathill. These events could have affected the number of other visitors, for example if the majority of parking spaces were taken up by these groups.

People entering

- 3.6 A total of 2,982 people were counted 'entering', of which 306 were minors. The total number of groups was 1,551, giving an average group size of 1.9 people per group (and 0.2 minors per group).

3.7 The numbers entering are expressed as per hour figures and shown by survey point in Figure 3 (with supporting data in Table 3). Based on the per hour counts, both the busiest and quietest sites recorded were on the Exe Estuary, ranging from 2.6 people per hour at Lymptone to 37.3 at Goat Walk (see Figure 3). The survey points on the Pebblebeds were less variable, ranging from 8.4 (Model Airfield) to 17.7 people per hour (Woodbury Castle). Numbers of minors per hour were above 3 at the two busiest survey points (Lymptone and Goat Walk). The next highest value was at Exmouth Duck Pond (2.9), where minors accounted for 20% of all people entering.

3.8 The average number of dogs entering across all sites was 6.1 dogs per hour. The number of dogs entering per hour was highest at Dawlish Countryside Park SANG with 13.1 dogs per hour. This was notably much higher than on the Pebblebeds and the Exe Estuary. The number of cyclists entering per hour was by far the greatest at Powderham, with 4.7 per hour. This equated to 36% of people entering on bikes at this location, compared the second highest percentage was 7% at Four Firs and to 5% across all the data.

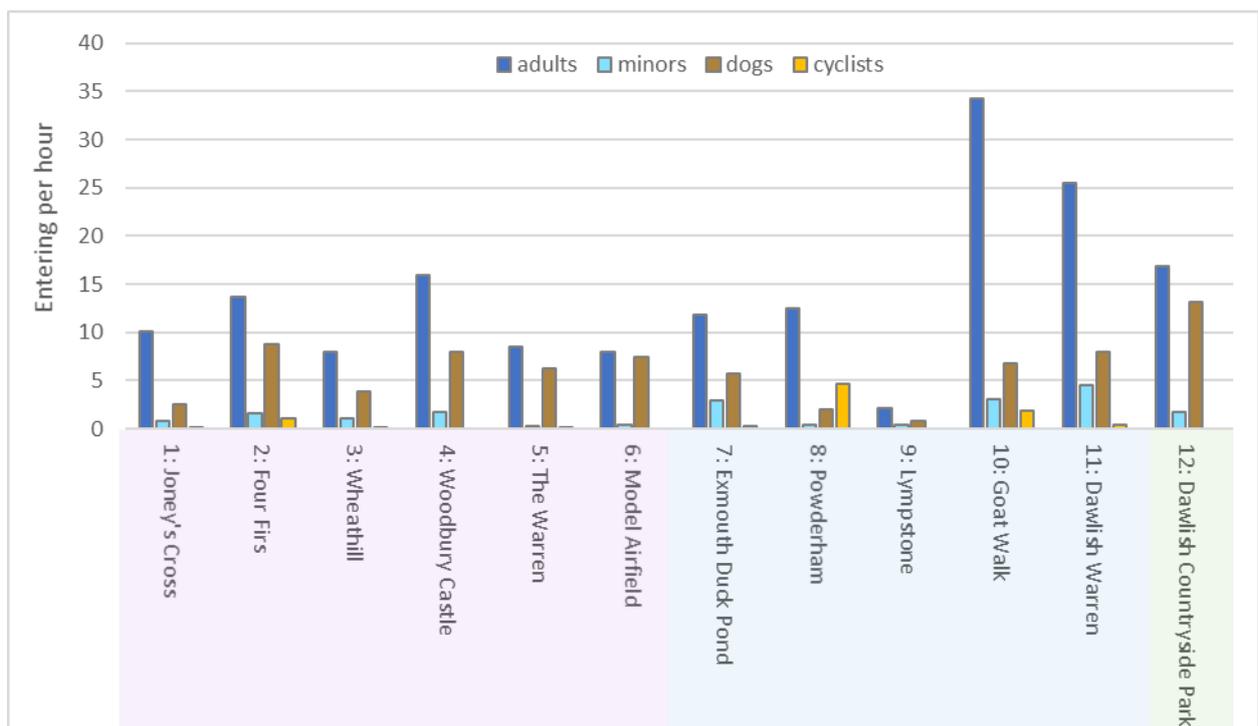


Figure 3: Total number of adults, minors, dogs and cyclists recorded entering per hour by survey point. Background shading indicates the grouping by the Pebblebeds (purple), Exe Estuary (blue) and SANG (green).

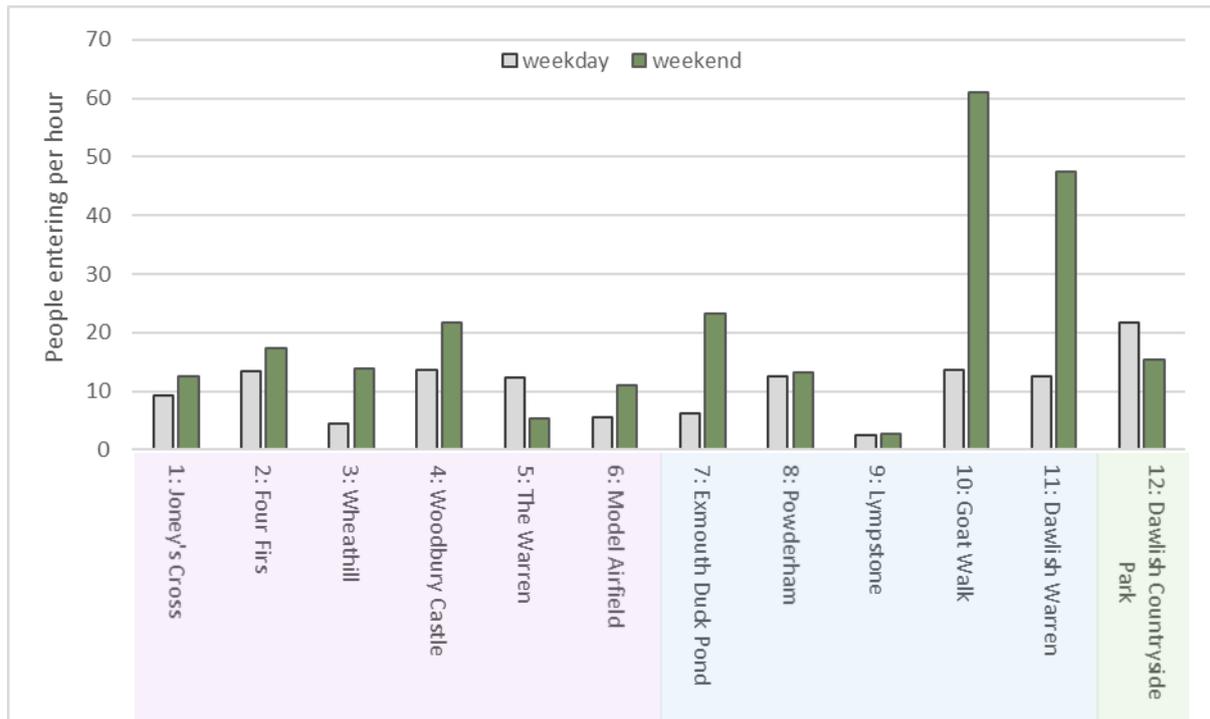


Figure 4: Averaged number of people per hour entering by survey point, shown separately for weekdays and weekend survey days. Background shading indicates the grouping by the Pebblebeds (purple), Exe Estuary (blue) and SANG (green).

Tally composition (using counts of those entering)

3.9 The average groups site (people entering) was 1.96 people per group on the Pebblebeds, 1.94 on the Exe Estuary and 1.71 at the SANG. The breakdown of adults and minors, and associated number of dogs and people on bikes are shown in Figure 5. These are based on an average across survey points. This figure shows that although overall group sizes were very similar between the Pebblebeds and Exe (1.96 and 1.94), this was driven in part by the relative number of minors. On average there were 0.18 minors per group on the Pebblebeds, compared to 0.25 on the Exe. The average number of dogs was very different between sites; with 1.21 dogs per group at the SANG, 1.03 on the Pebblebeds and 0.49 on the Exe.

3.10 The average group size is also shown Map 3 and Table 3. Group size was highest on the Pebblebeds at Wheathill and Joney's Cross (2.9 and 2.5 people per group respectively). The number of minors per group entering was highest at Exmouth Duck Pond and Lypstone (0.4 and 0.3 respectively). None of the Exe survey points recorded an average number of dogs that exceed 1 dog per group whereas on the Pebblebeds and the SANG values tended to be higher. Numbers of cyclists were highest at Powderham, but otherwise very small across all others.

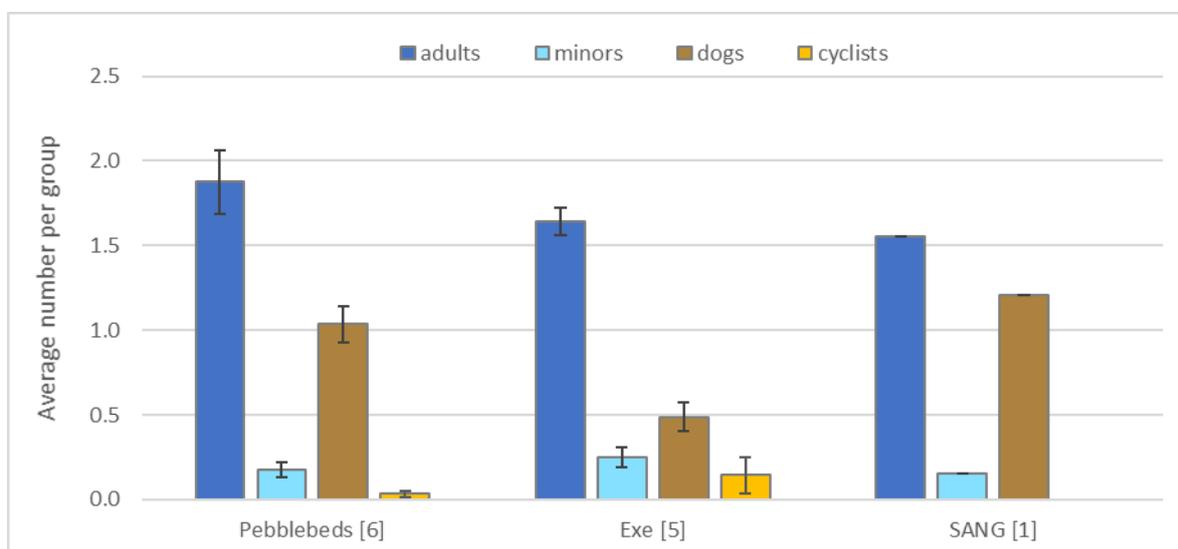
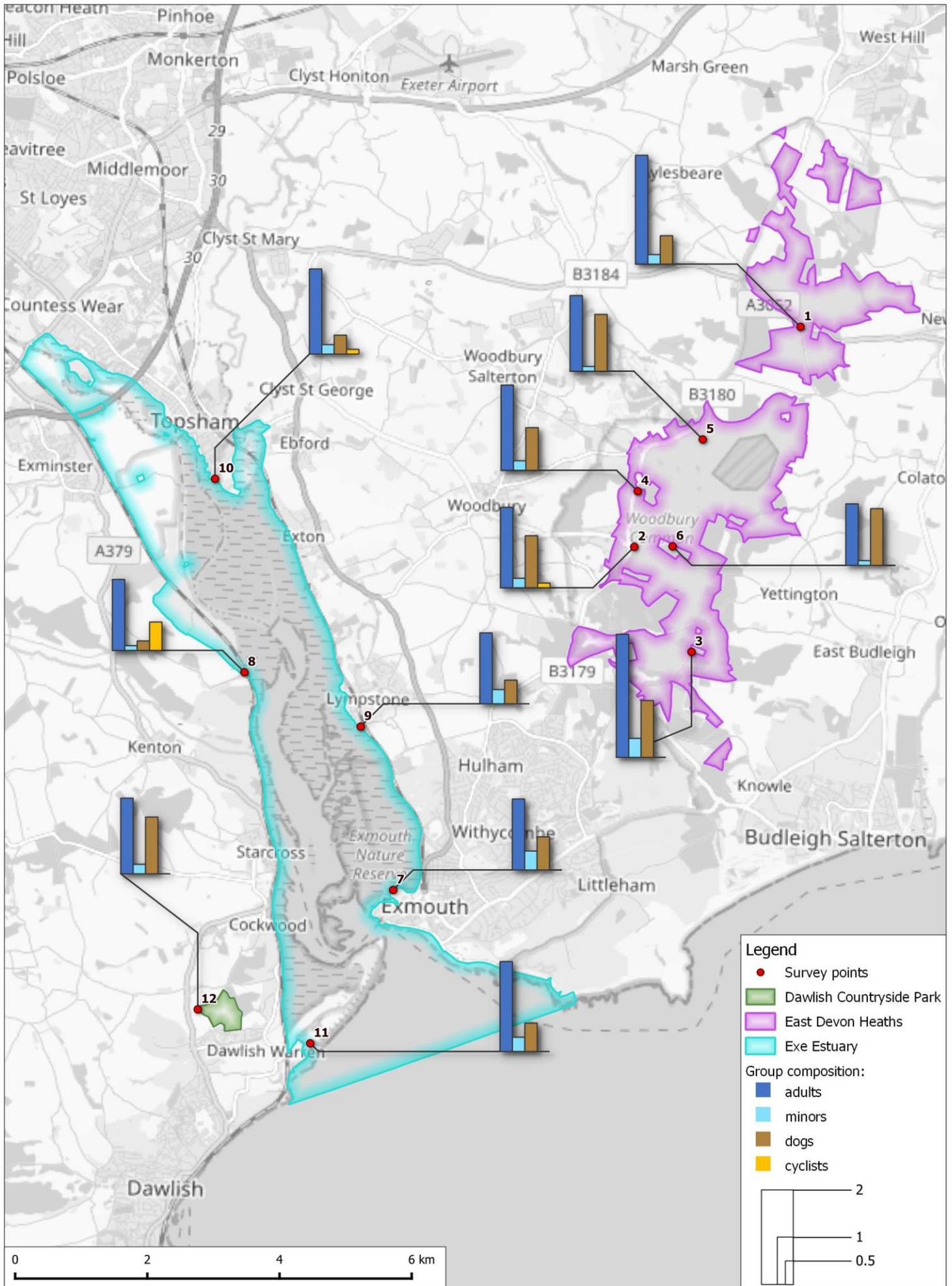


Figure 5: Typical group composition at the 3 sites, shown as the number of adults, minors, dogs and cyclists in an averaged group. Average is based on a mean across survey points. Number of survey points given in parenthesis.

Map 3: Typical group composition at each survey point.



South East Devon Visitor Survey 2020-2021

Table 3: Summary of the number of people, groups, minors, dogs and cyclists recorded entering at each survey point. Highest 3 values in each column are highlighted in red, lowest 3 are highlighted in blue. In the final column, the higher percentage (i.e. weekday or weekend) is highlighted in red.

Survey point	Total people	Total groups	Total dogs	Total minors	Total cyclists	People per hour	Group size	Dogs per group	% minors	% cyclists	% people weekday: weekend
1: Joney's Cross	174	71	41	13	2	10.9	2.5	0.6	7%	1%	43:57
2: Four Firs	246	129	141	26	17	15.4	1.9	1.1	11%	7%	44:56
3: Wheathill	146	50	62	18	1	9.1	2.9	1.2	12%	1%	25:75
4: Woodbury Castle	283	142	128	28	0	17.7	2.0	0.9	10%	0%	39:61
5: The Warren	141	83	99	5	2	8.8	1.7	1.2	4%	1%	70:30
6: Model Airfield	134	99	119	6	0	8.4	1.4	1.2	4%	0%	34:66
7: Exmouth Duck Pond	236	126	91	47	4	14.8	1.9	0.7	20%	2%	21:79
8: Powderham	206	133	32	7	75	12.9	1.5	0.2	3%	36%	49:51
9: Lympstone	41	22	12	7	0	2.6	1.9	0.5	17%	0%	49:51
10: Goat Walk	597	303	108	49	29	37.3	2.0	0.4	8%	5%	18:82
11: Dawlish Warren	481	219	127	73	6	30.1	2.2	0.6	15%	1%	21:79
12: Dawlish Countryside Park	297	174	210	27	0	18.6	1.7	1.2	9%	0%	59:41
Total	2982	1551	1170	306	136	15.5	1.9	0.8	10%	5%	34:66

4. Results: interview data

Number of interviews

4.1 During the 192 hours of survey, 872 groups were approached to be interviewed. A total of 499 interviews were conducted (i.e. 57% of those approached). Those groups who did not take part in the interviews either had already been approached and interviewed, in which case they were not re-interviewed (39 groups, 4% of those approached), refused to take part in the survey (331 groups, 38%) or had language issues (3 groups, <1%).

Table 4: The numbers (and percentage) of people approached who refused, had language issues, had already been interviewed and were successfully interviewed at each location. Highest 3 percentages in each column (for individual locations) are highlighted in red.

Survey location	Refusals	Language issues	Already interviewed	Total interviews	Total groups approached
1: Joney's Cross	14 (30)	0 (0)	1 (2)	32 (68)	47 (100)
2: Four Firs	32 (39)	0 (0)	6 (7)	44 (54)	82 (100)
3: Wheathill	16 (33)	1 (2)	2 (4)	30 (61)	49 (100)
4: Woodbury Castle	28 (37)	1 (1)	1 (1)	45 (60)	75 (100)
5: The Warren	25 (36)	0 (0)	4 (6)	41 (59)	70 (100)
6: Model Airfield	33 (44)	0 (0)	11 (15)	31 (41)	75 (100)
Pebblebed locations	148 (37)	2 (1)	25 (6)	223 (56)	398 (100)
7: Exmouth Duck Pond	29 (43)	0 (0)	0 (0)	39 (57)	68 (100)
8: Powderham	60 (61)	0 (0)	1 (1)	37 (38)	98 (100)
9: Lympstone	3 (10)	1 (3)	2 (7)	24 (80)	30 (100)
10: Goat Walk	53 (51)	0 (0)	2 (2)	48 (47)	103 (100)
11: Dawlish Warren	18 (21)	0 (0)	5 (6)	61 (73)	84 (100)
Exe Estuary locations	163 (43)	1 (<1)	10 (3)	209 (55)	383 (100)
12: Dawlish Countryside Park	20 (22)	0 (0)	4 (4)	67 (74)	91 (100)
All locations	331 (38)	3 (<1)	39 (4)	499 (57)	872 (100)

4.2 The number of refusals tended to be higher on the Exe Estuary sites and this may be a reflection of those sites being surveyed during the winter (when

colder and people perhaps less likely to linger). At the Exe Estuary sites and particularly Powderham the high proportion of cyclists following the Exe cycle trail may also be a reason for refusal as many were reluctant to stop given they were moving fast.

Visit type (Q1-2)

- 4.3 Overall, 464 of the interviewees (93%) were visiting directly from home. A further 27 interviewees (5%) were on holiday in the area and 6 interviewees (1%) were staying with friends or family. Finally 2 interviewees (<1%) described themselves as “other”, both visiting the sites for work.
- 4.4 A breakdown by survey point is shown in Table 5, reflecting an overall pattern of more interviewees visiting directly from home at the Pebblebeds, compared to the Exe. The percentage of interviewees visiting directly from home on the Pebblebeds was 97% (and the same at the SANG), compared to 88% on the Exe Estuary, with the Duck Pond and Dawlish Warren being notable for the proportion of holiday makers. On the Exe, the percentage of interviewees on holiday or staying with friends and family was 12% (25 interviewees), compared to just 3% (6) on the Pebblebeds and 3% (2) at the SANG.
- 4.5 Of the 27 interviewees who were on holiday, 11 of them (41%) were staying in a campervan/campsite, 8 of them (30%) were staying in self-catering accommodation, 4 of them (15%) were staying in a B&B, 3 of them (11%) in a second home and 1 of them (4%) in a hotel.

Table 5: Number (%) of interviewees by visit type (from Q1) and survey location. Highest 3 percentages in each column (for individual locations) are highlighted in red.

Survey point	Visiting directly from home	On holiday	Staying with friends/family	Other	Total
1: Joney's Cross	31 (97)	1 (3)	0 (0)	0 (0)	32 (100)
2: Four Firs	43 (98)	1 (2)	0 (0)	0 (0)	44 (100)
3: Wheathill	29 (97)	0 (0)	1 (3)	0 (0)	30 (100)
4: Woodbury Castle	42 (93)	2 (4)	0 (0)	1 (2)	45 (100)
5: The Warren	40 (98)	1 (2)	0 (0)	0 (0)	41 (100)
6: Model Airfield	31 (100)	0 (0)	0 (0)	0 (0)	31 (100)
Pebblebed locations	216 (97)	5 (2)	1 (<1)	1 (<1)	223 (100)
7: Exmouth Duck Pond	33 (85)	6 (15)	0 (0)	0 (0)	39 (100)
8: Powderham	32 (86)	3 (8)	1 (3)	1 (3)	37 (100)
9: Lympstone	21 (88)	1 (4)	2 (8)	0 (0)	24 (100)
10: Goat Walk	43 (90)	4 (8)	1 (2)	0 (0)	48 (100)
11: Dawlish Warren	54 (89)	6 (10)	1 (2)	0 (0)	61 (100)
Exe Estuary locations	183 (88)	20 (10)	5 (2)	1 (<1)	209 (100)
12: Dawlish Countryside Park	65 (97)	2 (3)	0 (0)	0 (0)	67 (100)
Total	464 (93)	27 (5)	6 (1)	2 (<1)	499 (100)

Activities (Q3)

- 4.6 The most common activity was dog walking, with roughly 3 in every 5 interviewees stating that this was their main activity (285 interviewees, 57%). However, these were the self-reported single choice main activities, and it should be noted that while 57% of interviewees gave their main activity as 'dog walking', in fact 65% of interviewees had a dog with them. Those interviewees who had a dog with them included those who stated that their main activity was walking (38 interviewees, 25% of those walking), bird/wildlife watching (3, 23%), running/jogging (2, 15%), canoeing/kayaking (1, 50%), "other" (1, 17%) and cycling (1, 6%). The percentage of interviewees who had at least one dog with them was 73% on the Pebblebeds, 48% on the Exe and 90% at Dawlish Countryside Park.
- 4.7 The next most common response was walking, (150 interviewees, 30%). 64 interviewees (13%) gave an activity type that was not dog walking or walking and these included a range of activities such as cycling, running, wildlife watching, watersports etc. Activity types are summarised by site in Figure 6 and by survey point in Map 4.

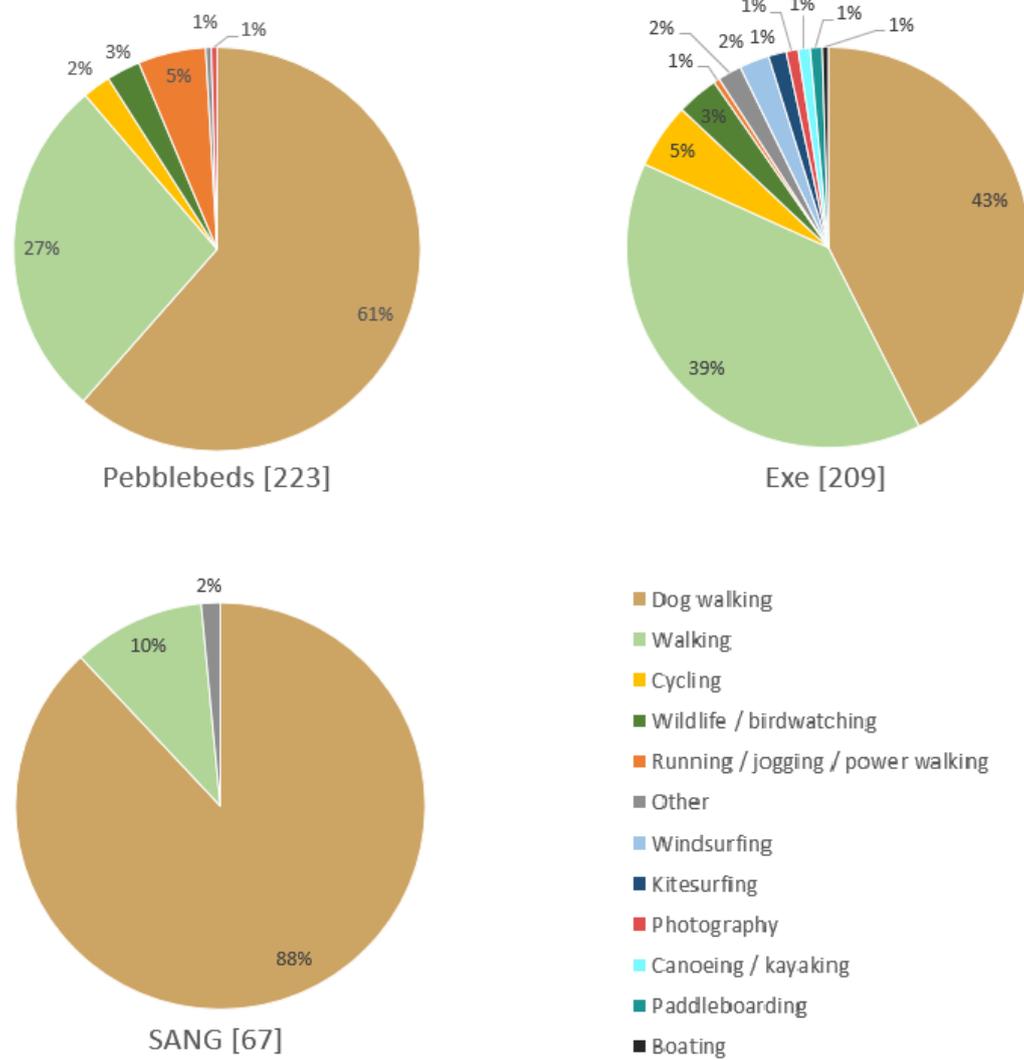
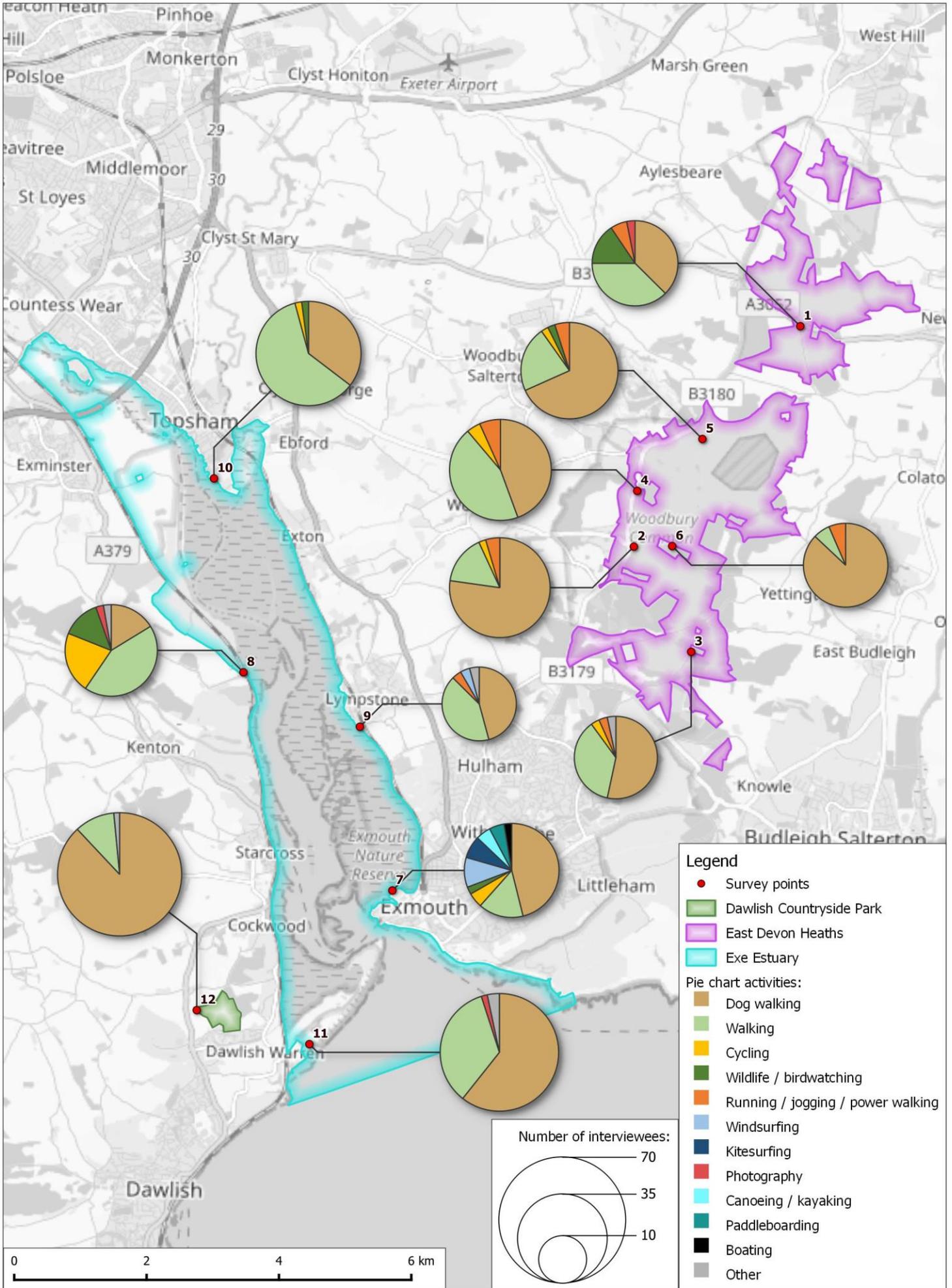


Figure 6: Main activity (from Q3) of interviewees by site.

Map 4: Pie charts to show interviewee activities.



Visit pattern (Q4-9)

Length of time visiting (Q4)

4.8 Over 50% of interviewees at the Pebblebed Heaths and at the Exe Estuary said that they had been visiting the site for over 10 years. At the Dawlish Warren survey location, this figure was 70%. The SANG has only been open since 2017, however 45% of interviewees said they had been visiting it for at least 3 years (Figure 7).

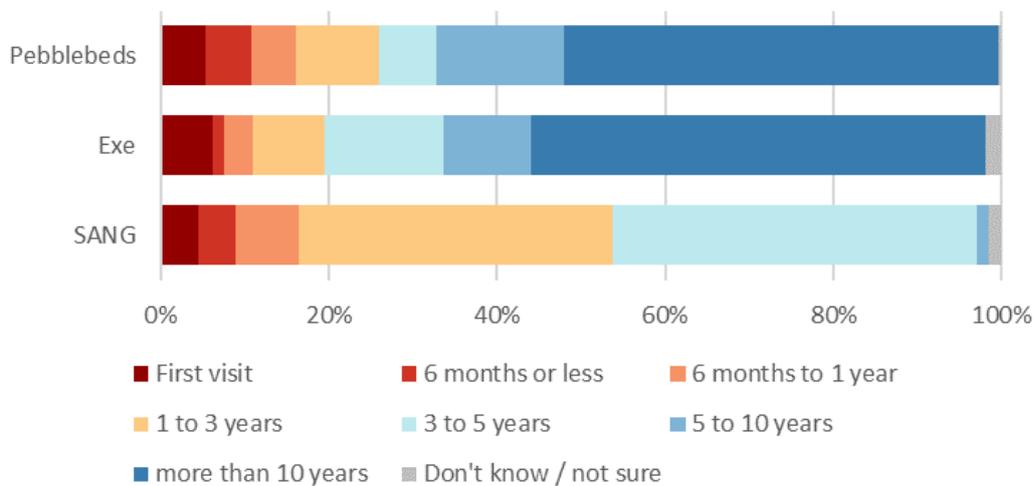


Figure 7: Length of time that interviewees had been visiting the location where interviewed (from Q4).

Visit duration (Q5)

4.9 The length of time spent on site varied greatly by survey location (Figure 8). Overall, 57% of interviewees at the Pebblebeds, 52% of interviewees at the Exe and 73% of interviewees at Dawlish Countryside Park had spent less than an hour on site. Sites where interviewees were staying the longest were Powderham, Exmouth Duck Pond and Lymptstone. At Powderham, 30% of interviewees had spent or were intending to spend more than 3 hours there.

4.10 The mean visit duration³ of interviewees (across all locations) was 76 minutes. For the Pebblebeds the mean was 70 minutes, for the Exe Estuary 91 minutes and for the SANG it was 54 minutes.

³ Calculated by using the following values for each category: Less than 30 minutes = 20 mins; Between 30 minutes and 1 hour = 45 minutes; 1 to 2 hours = 90 minutes; 2 to 3 hours = 150 minutes; More than 3 hours = 240 minutes.

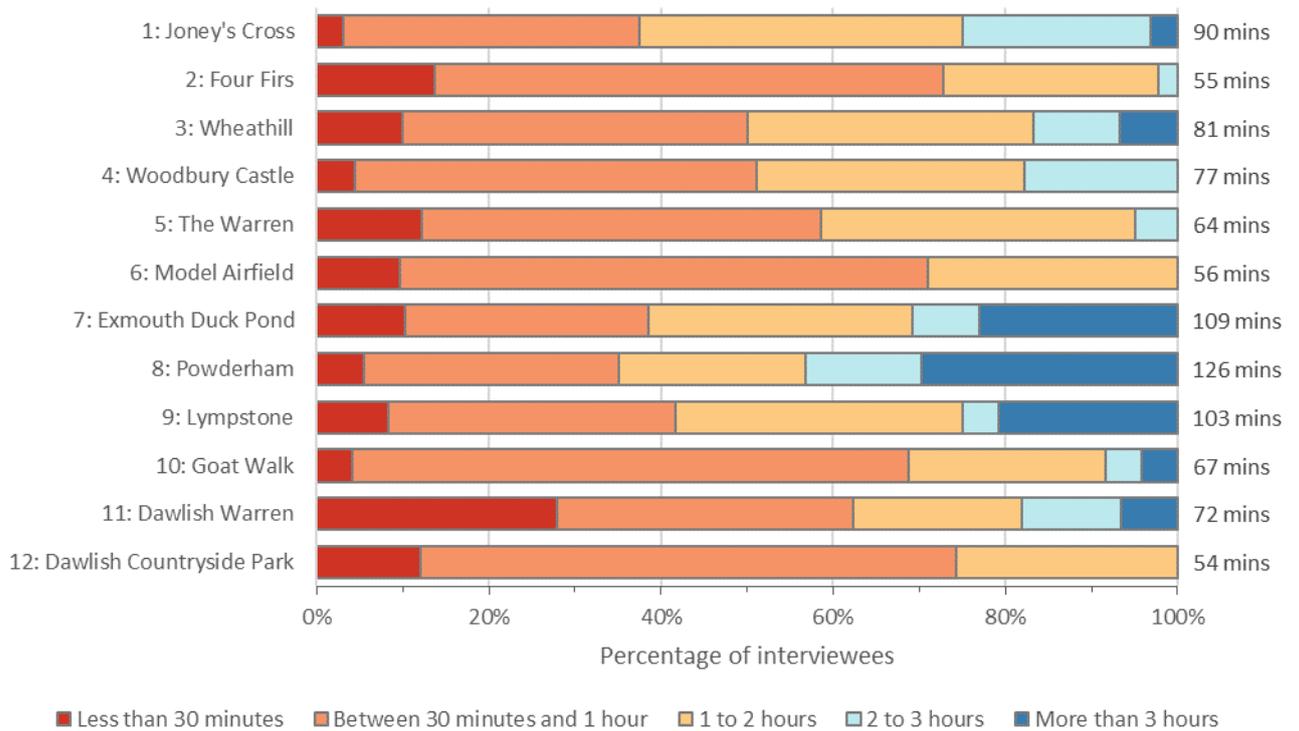


Figure 8: Length of time spent on site (Q5) by survey location. The times on the right-hand side are the average (mean) visit durations for each location.

Visit frequency (Q6-7)

- 4.11 Across all interviews, the most commonly cited visit frequency during the past year was 1-3 times a week, given by 155 interviewees (31%). 16% of interviewees said they had visited at least once a day, and 14% had visited 'most days'.
- 4.12 The combined percentage of interviewees who visited more than once a day, daily or most days was 28% at the Pebblebeds, 26% at the Exe Estuary and 49% at Dawlish Countryside Park. Visit frequencies for individual survey locations are shown in Figure 9.
- 4.13 By assigning a single value to each visit frequency category⁴, it was possible to calculate that the mean number of annual visits made by each interviewee was 24.

⁴ Using the following values for each category: 'More than once a day' = 700 visits; 'Daily' = 350 visits; 'Most days' = 200 visits; '1 to 3 times a week' = 110 visits; '2 to 3 times per month' = 27.5 visits; 'Once a month' = 10.5 visits; 'Less than once a month' = 3 visits; 'Don't know/First visit' = 1.

4.14 The majority (60%) of those who were interviewed in 2021 were visiting just as frequently as they had before the pandemic (Q7). 19% were visiting more frequently and 8% were visiting less frequently.

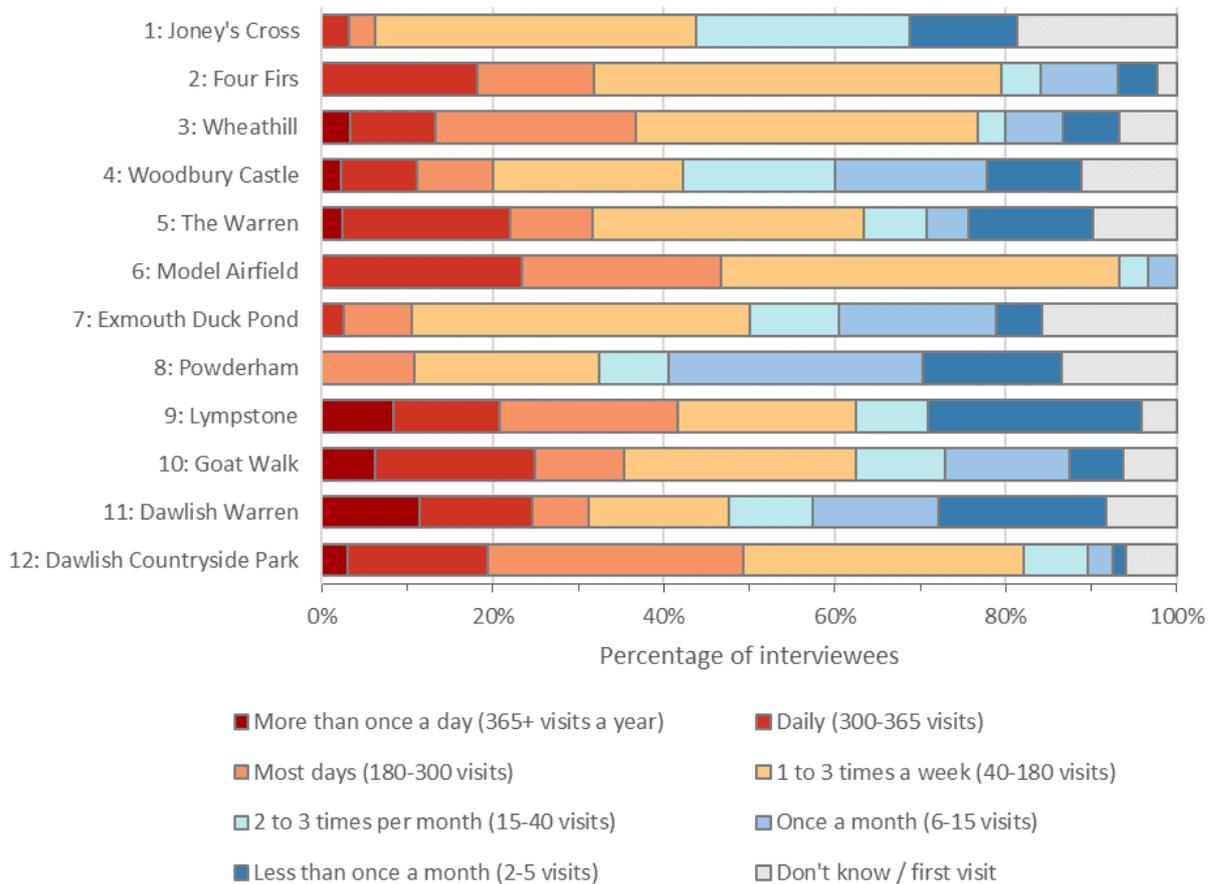


Figure 9: Visit frequency (Q6) by survey location.

Time of day and time of year (Q8-9)

4.15 Over a third of interviewees (173 interviewees, 35%) indicated that the time of day that they visited varied, and they did not have a regular time that they visited. Of those who did give a time period, the most common response was 'before 9am', given by a quarter (25%) of interviewees.

4.16 Around two thirds of interviewees (337 interviewees, 68%) indicated that they tended to visit equally all year round. However, this varied by activity type, for example 31% of interviewees who were wildlife/birdwatching said that they tended to visit more in the winter (Table 6).

Table 6: Number (%) of interviewees by the season that they tended to visit (Q9) and main activity (Q3). Multiple responses were allowed for Q9 so row percentages are based on the total number of interviewees and will not necessarily add up to 100%. The highest percentage in each row is highlighted in red.

Main activity	Spring (Mar-May)	Summer (Jun-Aug)	Autumn (Sept-Nov)	Winter (Dec-Feb)	Equally all year	Don't know / first visit	Total interviewees
Dog walking	26 (9)	26 (9)	21 (7)	29 (10)	214 (75)	12 (4)	285 (100)
Walking	20 (13)	22 (15)	17 (11)	13 (9)	87 (58)	25 (17)	150 (100)
Cycling	2 (13)	4 (25)	1 (6)	0 (0)	11 (69)	1 (6)	16 (100)
Wildlife / birdwatching	1 (8)	0 (0)	0 (0)	4 (31)	6 (46)	3 (23)	13 (100)
Running / jogging / power walking	0 (0)	2 (15)	0 (0)	1 (8)	10 (77)	0 (0)	13 (100)
Windsurfing	3 (60)	2 (40)	3 (60)	1 (20)	1 (20)	0 (0)	5 (100)
Kitesurfing	0 (0)	0 (0)	0 (0)	1 (33)	1 (33)	0 (0)	3 (100)
Photography	1 (33)	0 (0)	0 (0)	0 (0)	1 (33)	1 (33)	3 (100)
Canoeing / kayaking	0 (0)	0 (0)	0 (0)	1 (50)	1 (50)	0 (0)	2 (100)
Paddleboarding	0 (0)	1 (50)	0 (0)	0 (0)	1 (50)	0 (0)	2 (100)
Boating	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
Other	0 (0)	2 (33)	0 (0)	0 (0)	4 (67)	0 (0)	6 (100)
Total	53 (11)	60 (12)	42 (8)	50 (10)	337 (68)	42 (8)	499 (100)

Mode of transport (Q10)

4.17 Overall, 79% of interviewees had travelled to the interview location by car or van, 19% had come on foot and 3% by bicycle. However, this varied by survey location, and whilst car/van was the mode of transport used by the majority of interviewees at the Pebblebed locations and at Dawlish Countryside Park, this was not the case for all of the Exe Estuary survey locations (Figure 10). At Goat Walk and Lypstone the majority of interviewees had arrived on foot (77% and 67% respectively). Powderham and Goat Walk were the only locations where any interviewees had arrived by public transport (2 interviewees at each).

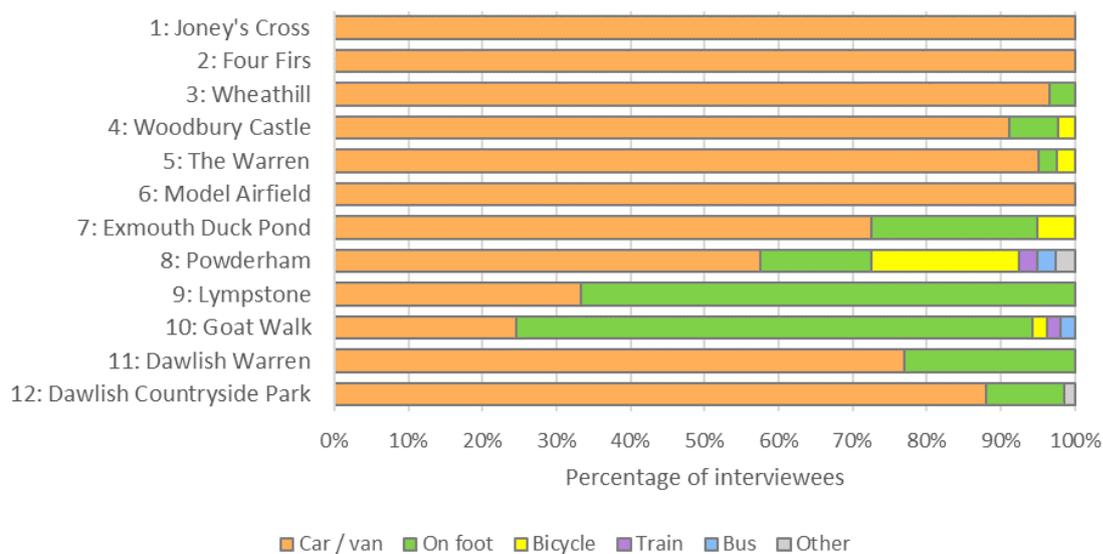


Figure 10: Mode of transport (Q10) by survey location.

Routes on site (Q11-13)

- 4.18 Out of 499 interviewees, 491 of them were able to describe the route that they had taken during their visit, or the route that they planned to take. Maps 5 to 7 are heatmaps showing the density of routes taken by interviewees at each site, which highlight where there was the most footfall. Maps 8 to 10 show separately the routes for the most common activity types.
- 4.19 In response to Q11, which asked interviewees at the Exe Estuary whether they went onto the intertidal areas at all, only 14 interviewees (7%) said they had, and an additional 3 interviewees (1%) said only their dogs had. However, examining the routes in GIS showed that 75 interviewees (36% of interviewees on the Exe) took routes that passed through intertidal areas within the Exe Estuary SPA. 35 of these interviewees were at Dawlish Warren, 22 at Exmouth Duck Pond, 17 at Lympstone and 1 at Goat Walk. Maps showing these routes are in Appendix 3.
- 4.20 Across all sites, the length of interviewees' routes ranged from 170m to 32.73km, with a median length of 2.27km (Table 7). The median route lengths on the Pebblebeds and the Exe were similar, 2.46km and 2.59km respectively. At Dawlish Countryside Park the median route length was 1.68km. The longest routes at Dawlish Countryside Park were made by interviewees who had done two laps of the park. Interviewees at Powderham tended to have the longest routes, with a median length of 5.29km. Routes

at other survey locations were mostly shorter than 5km (Figure 11). Route lengths varied by activity type, with cyclists generally having the longest routes, with a median route length of 16.7km (Figure 12).

4.21 Across all locations, 58% of interviewees said that their route length was typical for when they visit this location (Q12). However, 28% said that their route was shorter than normal. Only 4% said that their route was much longer than normal.

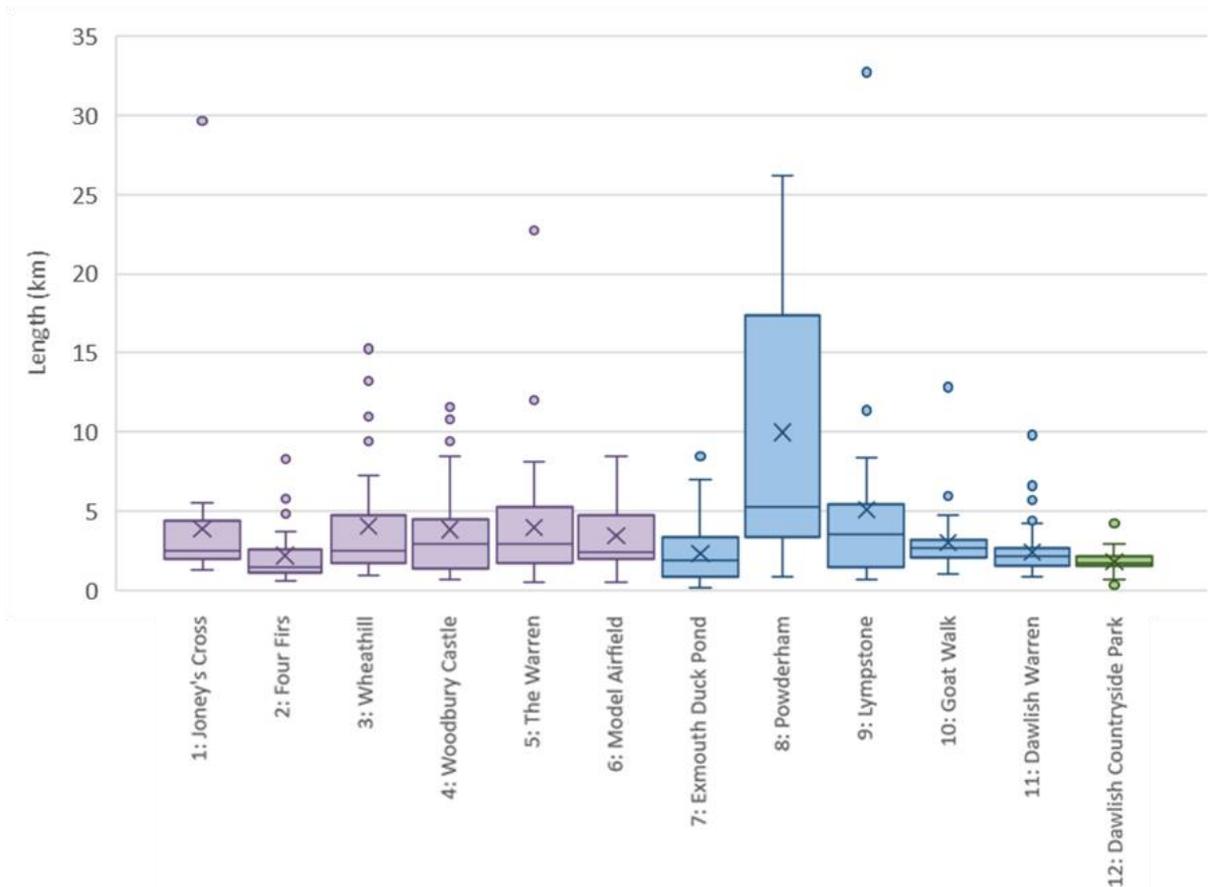


Figure 11: Boxplot showing route lengths (km) of interviewees, by survey location. Horizontal lines show the median, crosses indicate the mean, boxes show the interquartile range and the dots are outliers.

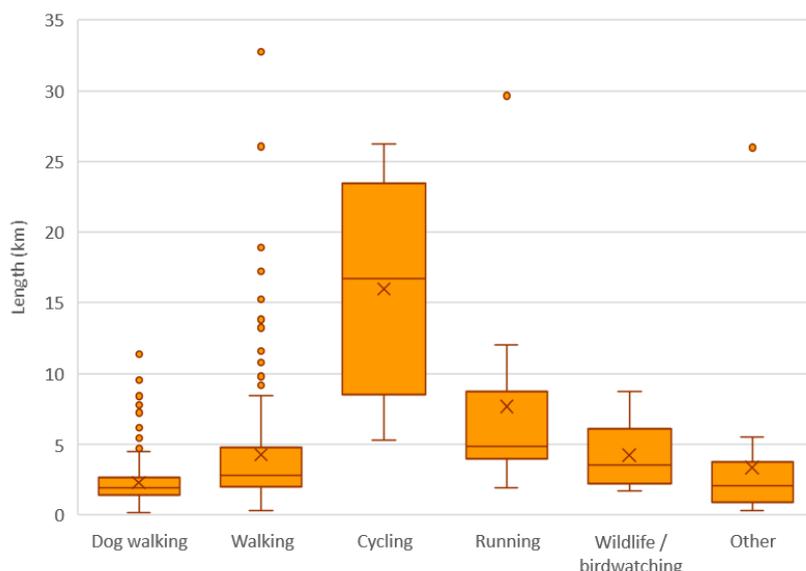


Figure 12: Boxplot showing route lengths (km) of interviewees, by their main activity (Q3). Activities given by fewer than 10 interviewees are grouped as 'Other'. Horizontal lines show the median, crosses indicate the mean, boxes show the interquartile range and the dots are outliers.

Table 7: Summary statistics for route lengths (km), by survey location and by main activity. Activity types given by fewer than 10 interviewees are grouped as 'Other'.

Survey point / Activity	N	Range	Mean (\pm SE)	Median	Q3
1: Joney's Cross	31	1.24 - 29.64	3.85 \pm 0.89	2.46	4.43
2: Four Firs	43	0.61 - 8.46	2.16 \pm 0.28	1.43	2.53
3: Wheathill	30	0.96 - 15.25	4.06 \pm 0.70	2.49	4.72
4: Woodbury Castle	43	0.64 - 11.58	3.82 \pm 0.46	2.90	4.47
5: The Warren	40	0.51 - 22.76	3.94 \pm 0.61	2.92	5.25
6: Model Airfield	31	0.47 - 8.42	3.43 \pm 0.38	2.43	4.72
Pebblebed locations	218	0.47 - 29.64	3.50 \pm 0.23	2.46	4.23
7: Exmouth Duck Pond	37	0.17 - 8.49	2.31 \pm 0.33	1.85	3.35
8: Powderham	37	0.87 - 26.23	9.97 \pm 1.43	5.29	17.34
9: Lypstone	24	0.64 - 32.73	5.07 \pm 1.32	3.48	5.39
10: Goat Walk	48	0.99 - 12.82	2.99 \pm 0.26	2.65	3.20
11: Dawlish Warren	61	0.80 - 9.80	2.42 \pm 0.20	2.10	2.65
Exe Estuary locations	207	0.17 - 32.73	4.19 \pm 0.37	2.59	4.16
12: Dawlish Countryside Park	66	0.35 - 4.27	1.79 \pm 0.09	1.68	2.11
Dog walking	280	0.17 - 11.35	2.30 \pm 0.09	1.92	2.70
Walking	148	0.35 - 32.73	4.29 \pm 0.36	2.82	4.76
Cycling	15	5.29 - 26.23	16.01 \pm 1.98	16.72	23.45
Running / jogging	13	1.94 - 29.64	7.68 \pm 1.98	4.83	8.73
Wildlife / birdwatching	13	1.70 - 8.78	4.22 \pm 0.60	3.55	6.07
Other	22	0.33 - 25.98	3.35 \pm 1.13	2.08	3.75
All	491	0.17 - 32.73	3.56 \pm 0.19	2.27	3.85

4.22 Factors that influenced interviewees’ choice of route (Q13) are summarised in Figure 13. The most common factor was previous knowledge of the area, which was cited by 108 interviewees (22%). The next most common factors were the weather (16%) and time (13%). There were 98 responses that didn’t fit into the pre-determined categories. These included visiting a pub or café en route, following their dog, taking a ‘random’ route, and the terrain (either preferring flat, level terrain, or favouring hills). Some interviewees mentioned that they were aiming for a set distance, which is how they had decided on their route.

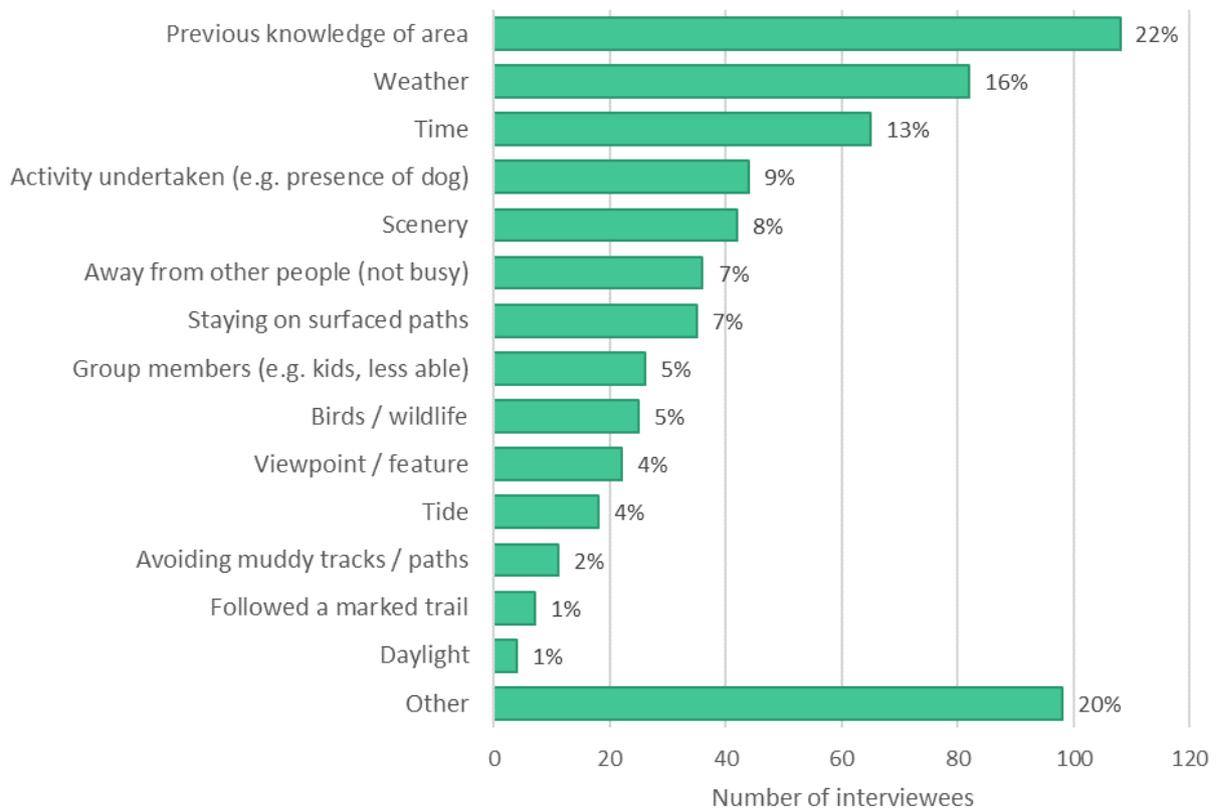
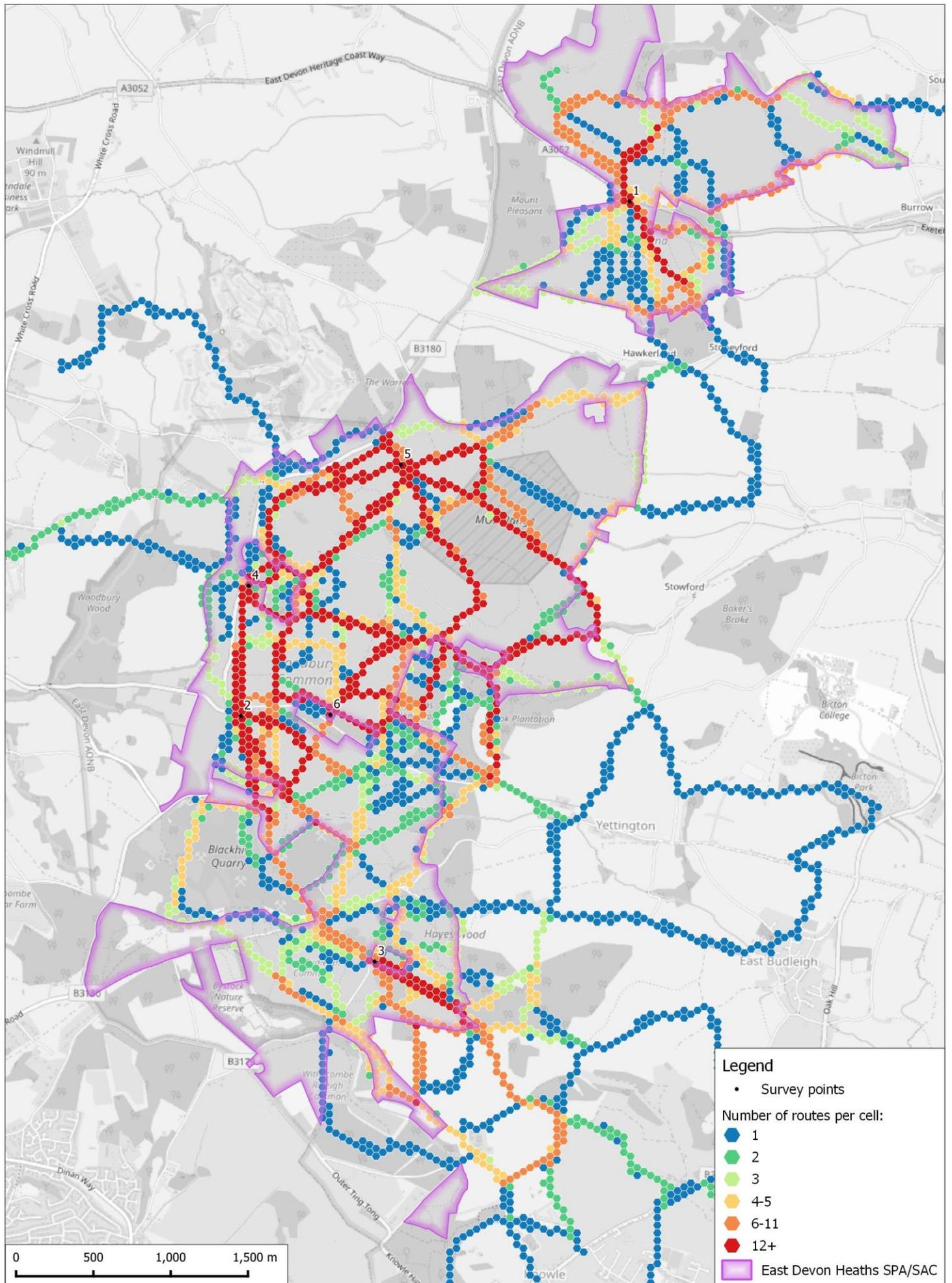
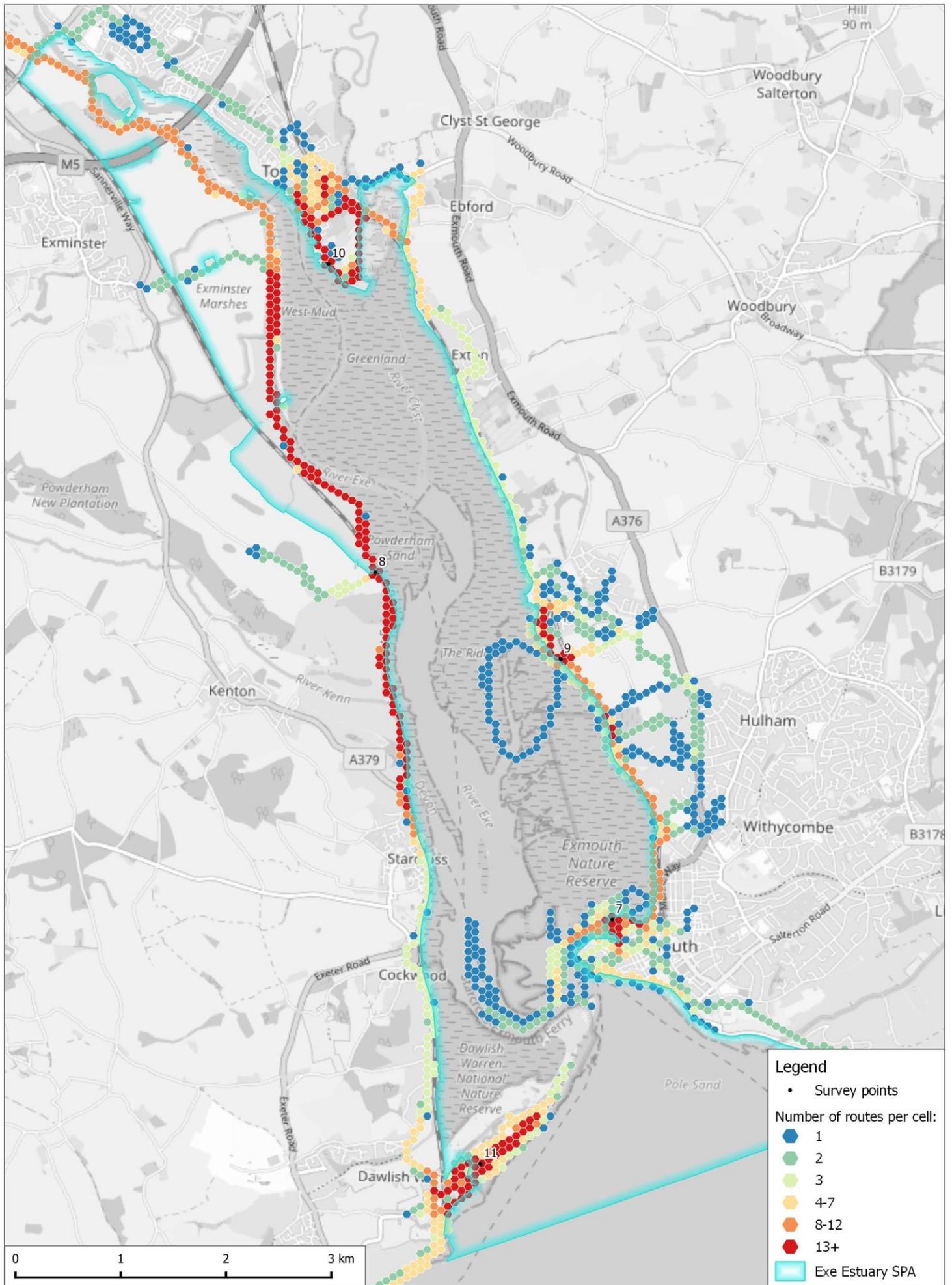


Figure 13: Factors influencing route choice (Q13). Percentages are calculated using the total number of interviewees. Interviewees could cite more than one factor so percentages will not add up to 100%.

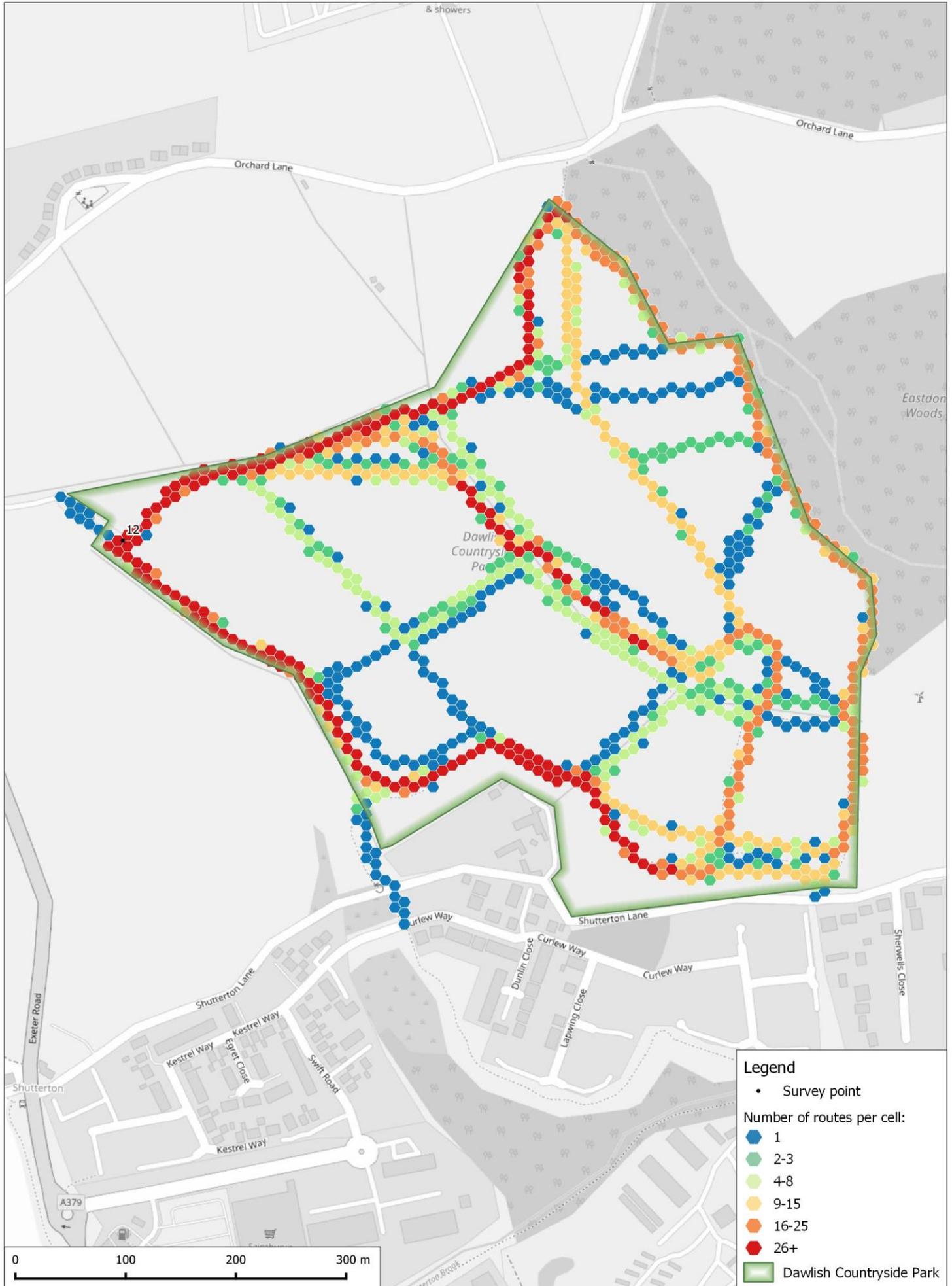
Map 5: Routes taken by interviewees at the Pebblebed Heaths, overlaid onto a 50m hexagonal grid and displayed as a heatmap.



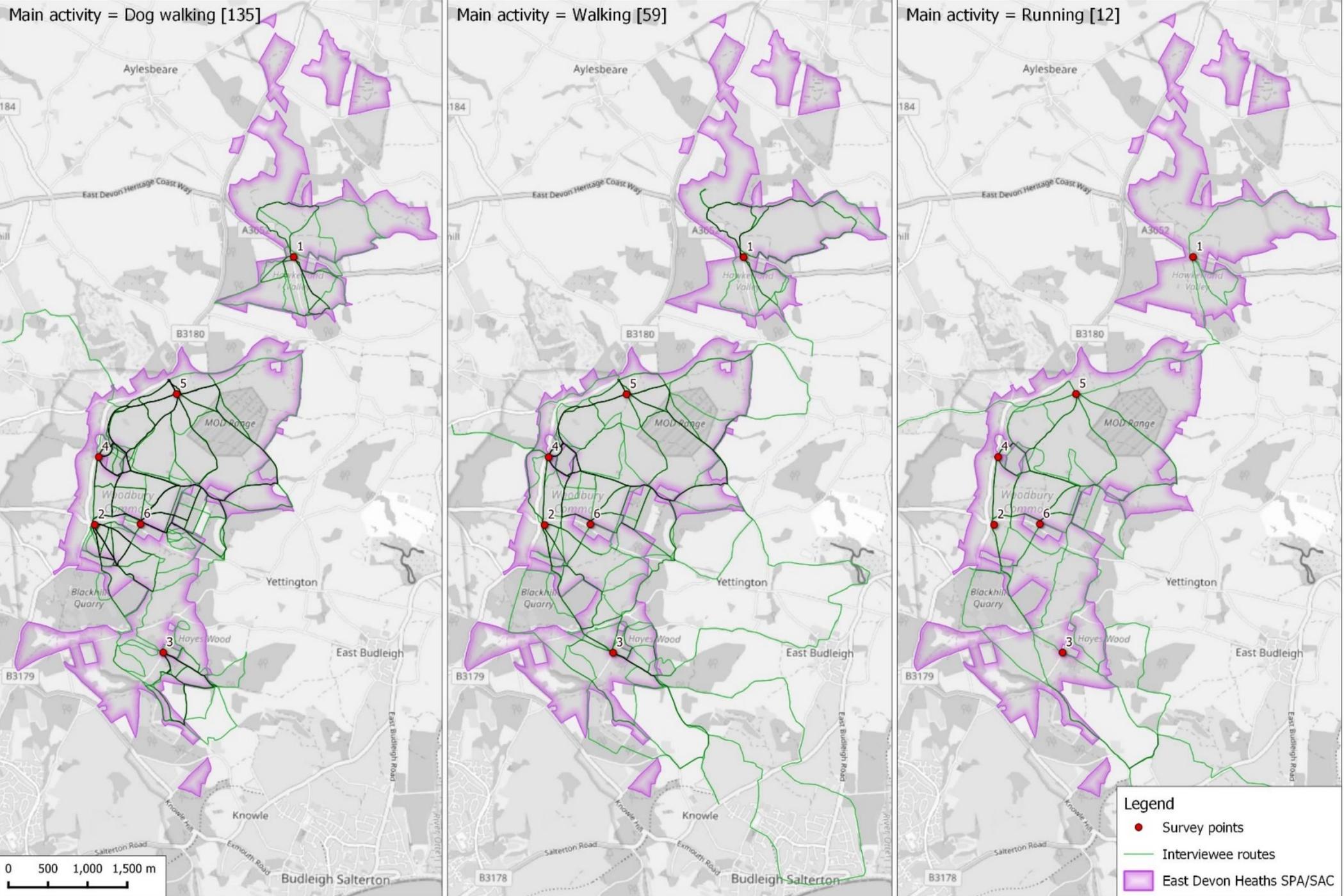
Map 6: Routes taken by interviewees visiting the Exe Estuary, overlaid onto a 75m hexagonal grid and displayed as a heatmap.



Map 7: Routes taken by interviewees visiting Dawlish Countryside Park, overlaid onto a 10m hexagonal grid and displayed as a heatmap.

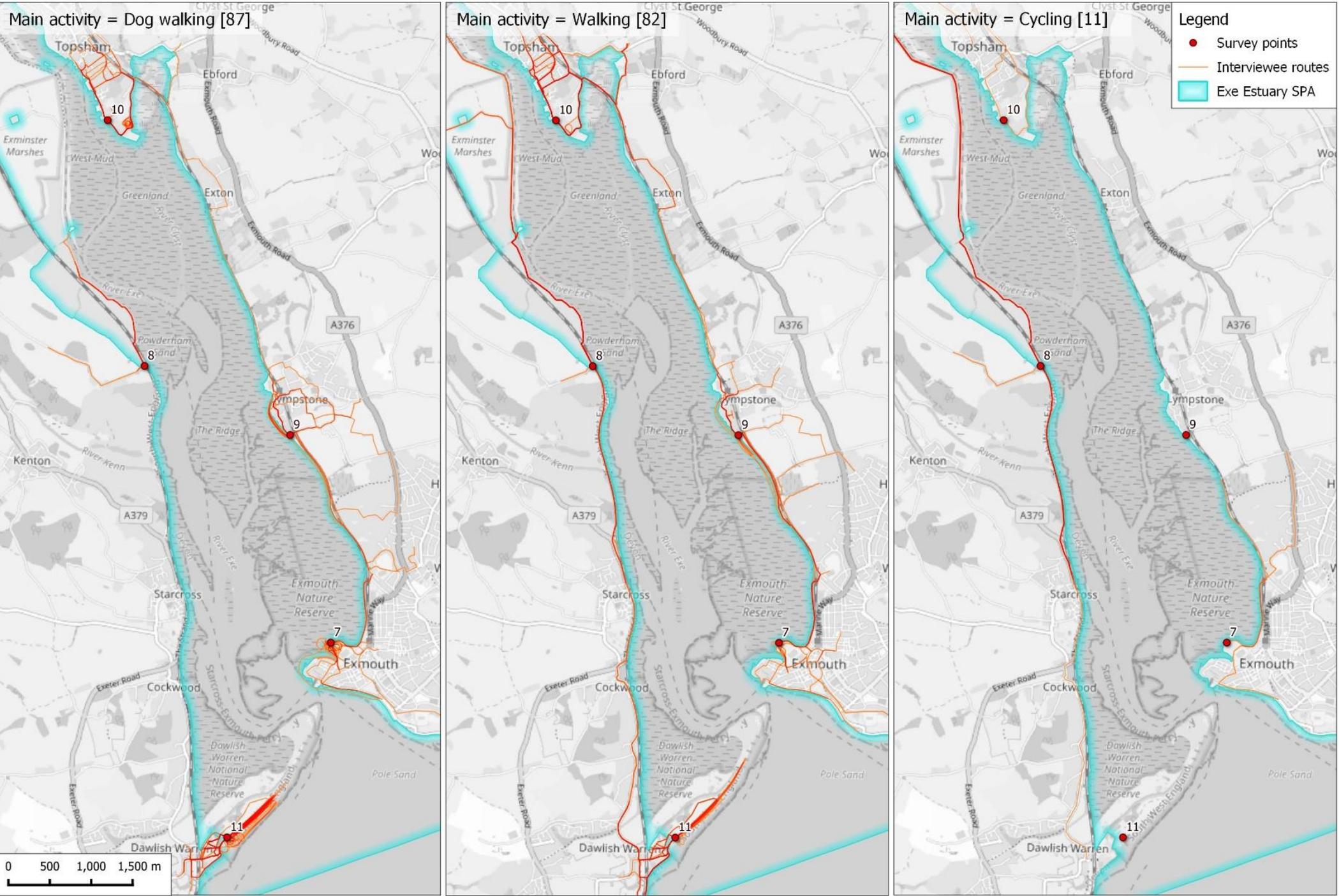


Map 8: Routes taken by interviewees at the Pebblebed Heaths, by main activity (Q3). Darker lines indicate where routes overlap i.e. where footfall is highest.



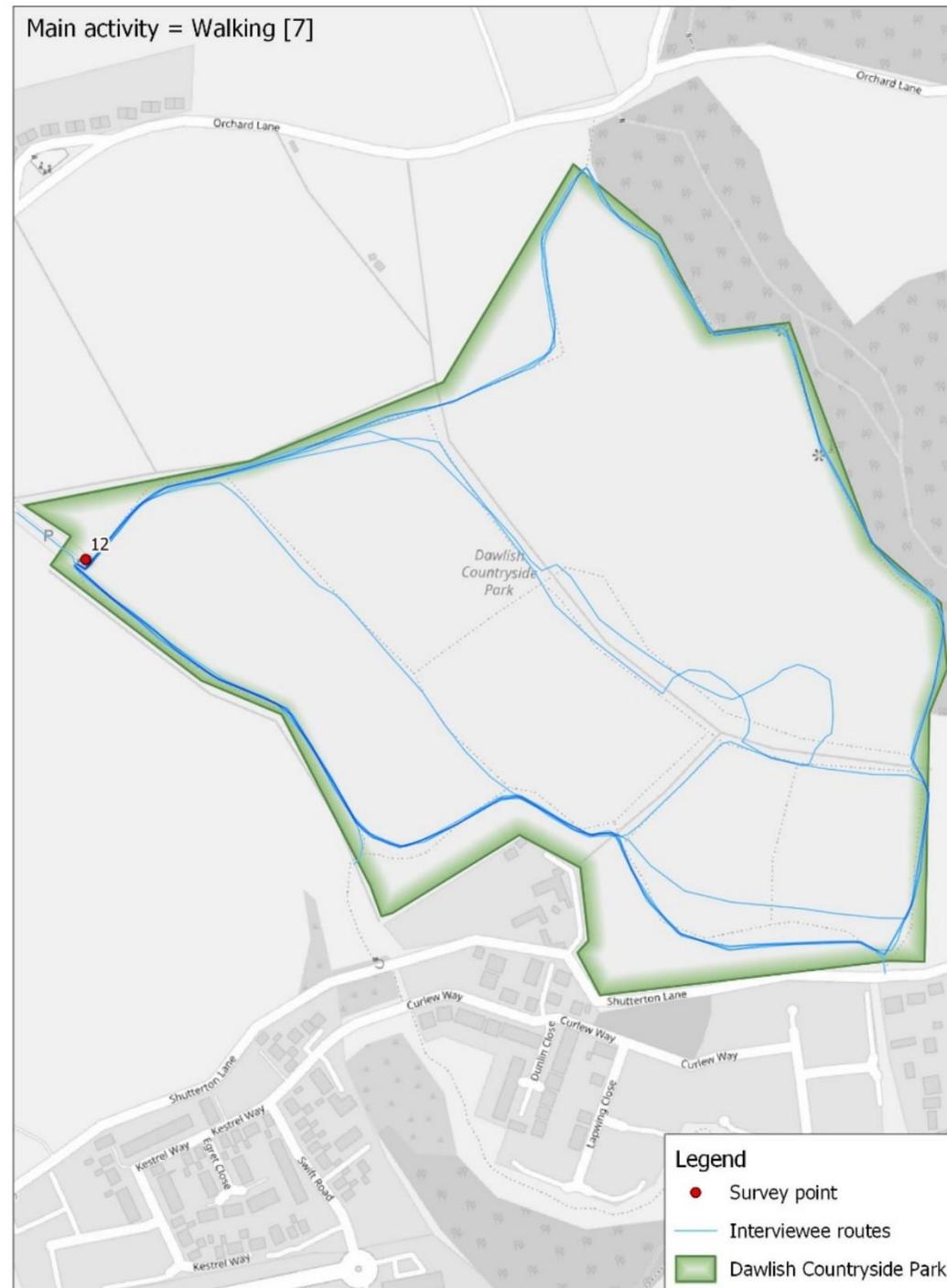
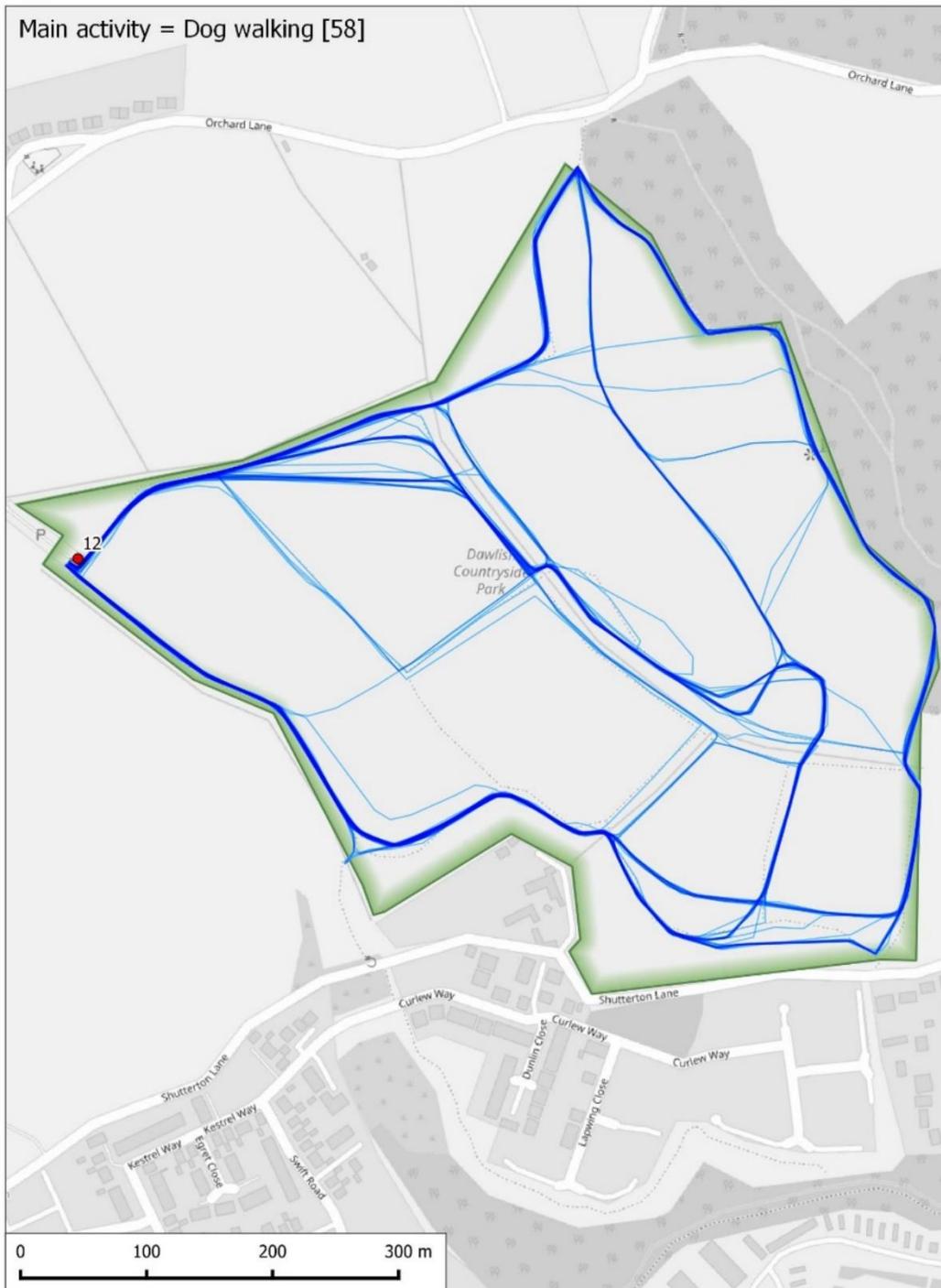
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Map 9: Routes taken by interviewees visiting the Exe Estuary, by main activity (Q3). Darker lines indicate where routes overlap i.e. where footfall is highest.



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Map 10: Routes taken by interviewees visiting Dawlish Countryside Park, by main activity (Q3). Darker lines indicate where routes overlap i.e. where footfall is highest.



Reasons for site choice (Q14)

- 4.23 Overall, the most common reason given by interviewees for choosing to visit the particular location where interviewed was that it was close to home (142 interviewees, 28%). However, the reasons for site choice did vary by site (Figure 14), and at Dawlish Countryside Park the most common reason was because they could let their dog off the lead (37% of interviewees). On the Exe Estuary, the scenery was also a particularly important factor, given by 32% of interviewees.
- 4.24 Reasons grouped under 'Other' included visiting on a recommendation from a friend (6 interviewees), seeing a route in a magazine/book (3 interviewees) and specifically wanting to visit Woodbury Castle Hillfort (3 interviewees).

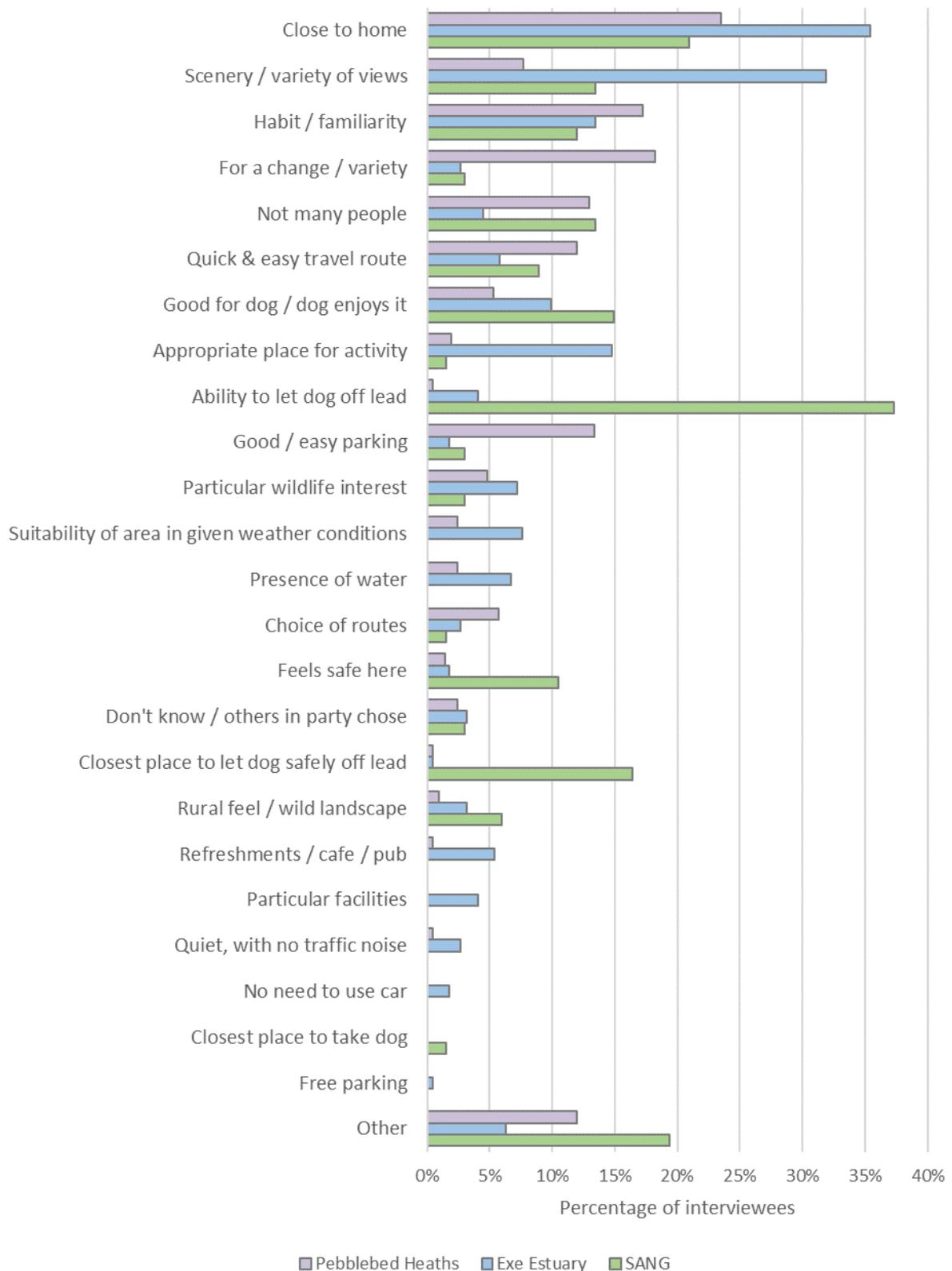


Figure 14: Reasons given by interviewees for visiting the specific place where they were interviewed on that day rather than another location (Q14). Interviewees could give multiple reasons. Reasons are in descending order of the total number of responses.

Alternative sites (Q15)

- 4.25 Almost all interviewees (465, 93%) were able to name an alternative site that they would have visited for their activity if they could not visit the location where they were interviewed. Only 4% said that they wouldn't have visited anywhere and 3% were unsure or didn't answer this question.
- 4.26 30% of those interviewed on the Exe gave another place on the estuary as the alternative they would visit, and a further 16% indicated they would have visited the coast. 7% of those interviewed on the Exe would have gone to the Pebblebeds instead and the most commonly cited single location outside the Exe Estuary was Dawlish Countryside Park (cited by 8% of those interviewed at the Exe Estuary sites).
- 4.27 For those interviewed on the Pebblebeds, 63% gave an alternative location within the Pebblebed Heaths. 10% gave a location on the Exe Estuary and a further 4% gave other coastal locations away from the Exe. The most common single destination given away from the Heaths was Exmouth (8%).
- 4.28 For those interviewed at Dawlish Countryside Park, 31% would have visited the Exe Estuary instead and a further 16% another coastal location away from the Exe. The most commonly cited single alternative was Dawlish Warren (19% of interviewees there) and then Dawlish (15%).
- 4.29 In Figure 15 we show the most frequently cited alternative locations and the shading reflects the different interview locations. The percentage values reflect the percentage of interviewees that named the alternative location. The 10 most frequently named alternatives for each site are listed in Table 8.

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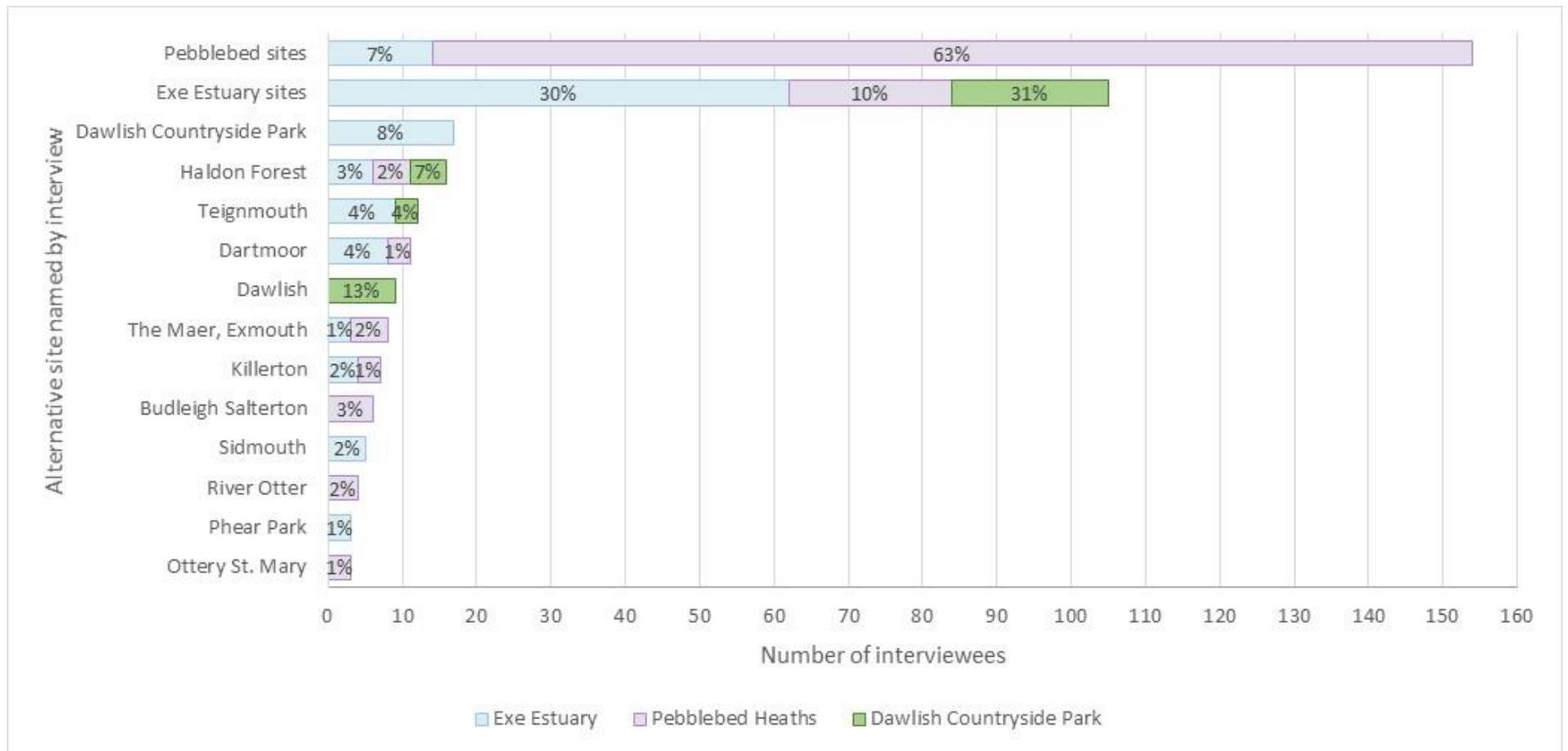


Figure 15: Alternative locations named by interviewees (Q15). Shading reflects the site where the interview took place. All alternative locations are included that were named by at least 3 interviewees at a given site. Value labels give the percentage of interviewees at each broad site that named the alternative location. The alternative locations at the Exe and the Pebblebeds have been grouped together.

Table 8: Top 10 alternative destinations specified by interviewees at each location (from Q15). Numbers in brackets indicate the % of interviewees.

Pebblebed Heaths	Exe Estuary	SANG
Elsewhere Pebblebed Heaths (43)	Exmouth (16)	Dawlish Warren (19)
Exmouth (7)	Dawlish Countryside Park (8)	Dawlish (15)
Woodbury Common / Woodbury Castle (7)	Woodbury Common / Woodbury Castle (7)	Haldon Forest (7)
Four Firs (5)	Teignmouth (4)	Powderham (6)
Budleigh Salterton (3)	Dartmoor (4)	Teignmouth (4)
The Maer, Exmouth (2)	Haldon Forest (3)	Mules Park (3)
Haldon Forest (2)	Topsham (2)	Ashcombe (3)
Aylesbeare Common (2)	Sidmouth (2)	Oaklands (3)
River Otter (2)	Killerton (2)	Holcombe (3)
Dartmoor (1)	Lympstone (2)	Dartmoor (3)

Use of Dawlish Countryside Park (Q16-17)

4.30 Dawlish Countryside Park was named by 17 interviewees on the Exe Estuary in Q15 as an alternative site that they would visit instead of their interview location. In addition to this, when directly asked (Q16) another 75 interviewees said that they had visited Dawlish Countryside Park. However, most of these were infrequent visitors, with 85% (64 interviewees) visiting the SANG less than once a month. In total, therefore, 44% of interviewees on the Exe Estuary had visited Dawlish Countryside Park.

Awareness of nature conservation (Q18-19)

4.31 Interviewees at the Pebblebed Heaths and the Exe Estuary were asked two additional questions to gauge their awareness of the nature conservation importance of the site. Interviewees were not shown any options for these questions, although the surveyors had pre-determined categories to facilitate recording the responses given.

4.32 Regarding designations, 59% of interviewees at the Pebblebeds and 76% of interviewees at the Exe Estuary were aware that the site had environmental protection (Figure 16), but only 43% and 42% respectively were able to name or describe what these were.

4.33 At the Pebblebeds, 20% of interviewees knew that it was a nature reserve and 18% knew that it was a SSSI. On the Exe, 29% mentioned it being a

nature reserve and 22% knew that it was protected because it was important for birds (Figure 17).

4.34 Of the 12 responses grouped as 'Other', 8 of them mentioned scheduled monuments or heritage sites, 2 mentioned grazing, 1 mentioned the Wildlife and Countryside Act and 1 of them mentioned the Jurassic Coast.

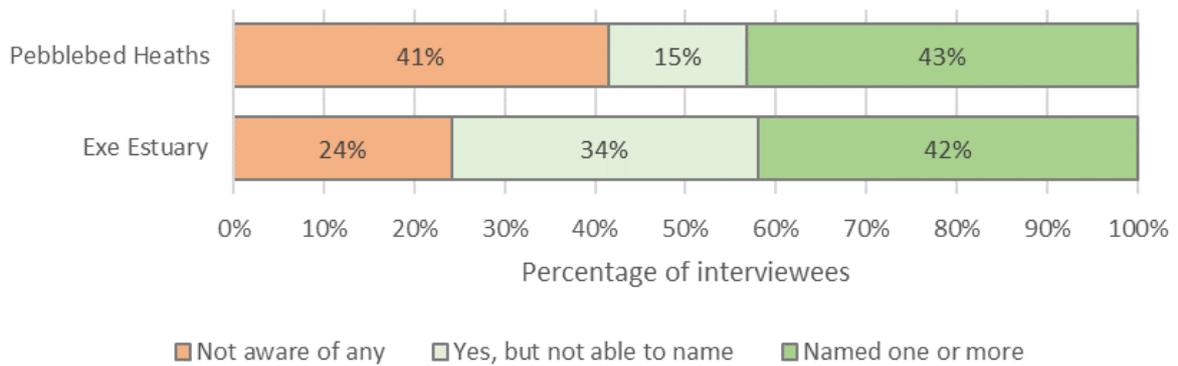


Figure 16: Awareness of designations or environmental protections (Q18).

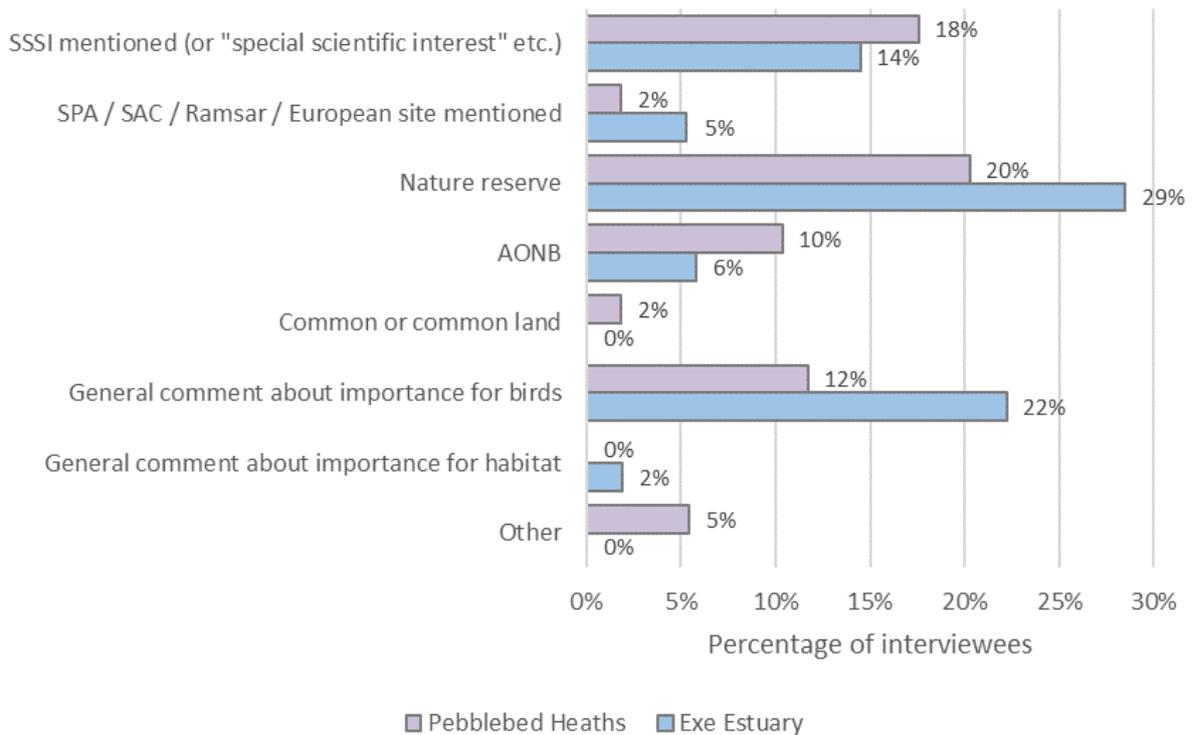


Figure 17: Designations named or described by interviewees (Q18).

4.36 Regarding wildlife and habitats, 84% of interviewees at the Pebblebeds and 78% of interviewees at the Exe Estuary were able to name at least one group of species or habitats that the site is important for (Figure 18).

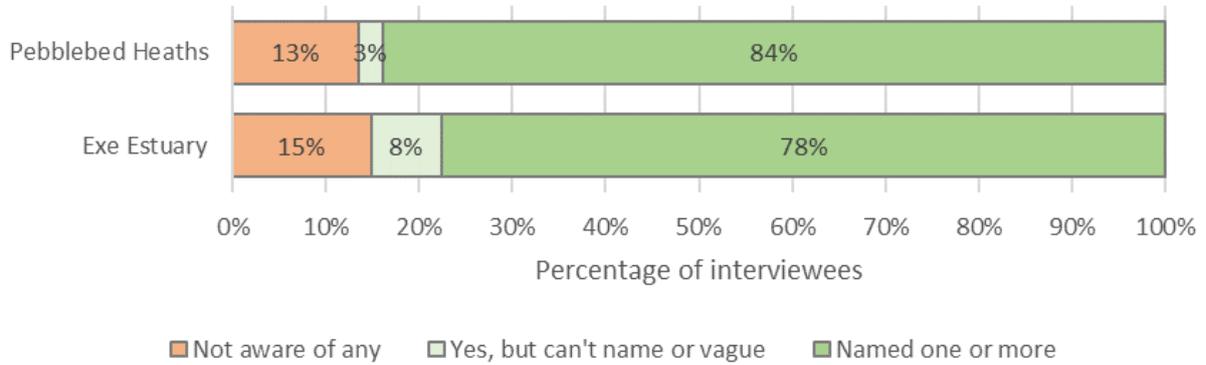


Figure 18: Awareness of important wildlife species or habitat that are present (Q19)

4.37 Over half of interviewees at both sites were aware that it was important for birds, even if they weren't able to name any species. A third of interviewees at the Exe knew that it was important for wading birds or wildfowl, with many of them specifically naming examples such as Avocet or Curlew. Around a third of interviewees at the Pebblebeds knew that it was important for reptiles (Figure 19).

4.38 Comments grouped as 'Other' covered a wide range of species including deer (22 interviewees) and butterflies (19 interviewees).

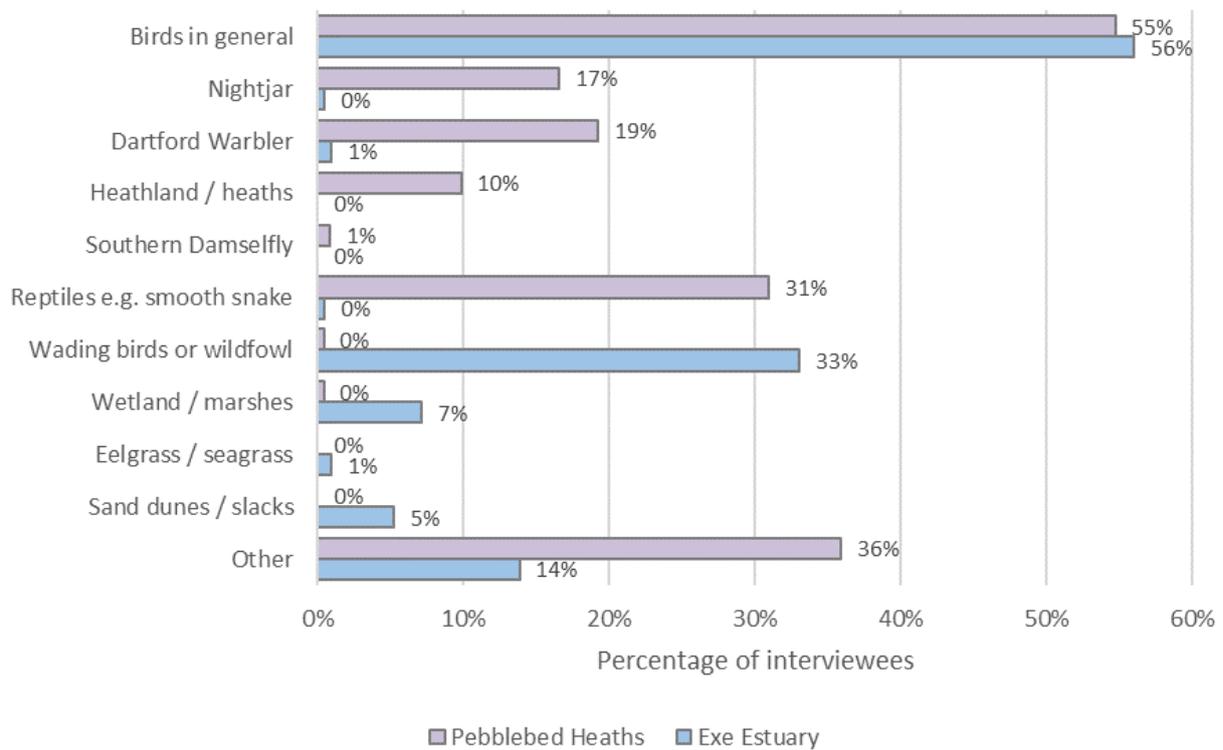


Figure 19: Species or habitats named by interviewees (Q19)

Awareness of mitigation related measures (Q20-29)

Interaction with rangers/mitigation officers (Q20-24)

4.39 A third of interviewees (33%) at the Pebblebeds and a quarter of interviewees (25%) on the Exe Estuary had met one of the rangers or mitigation officers. Of those who had met a ranger or mitigation officer, 78% had spoken to them. Interactions with rangers and mitigation officers are summarised in Table 9.

Table 9: Summary of interviewees' interactions with rangers and mitigation officers (from Q20-24) by survey location. In the first column, percentages are based on the total number of interviewees; for the other columns percentages are based on the number of interviewees who answered 'Yes' to Q20 i.e. they had met one of the staff on site.

Survey point	Yes, have met (Q20)	Yes, have spoken to (Q21)	Yes, have learnt about wildlife (Q22)	Yes, have changed behaviour (Q23)	Yes, feel safer (Q24)
1: Joney's Cross	28%	67%	33%	22%	0%
2: Four Firs	32%	79%	21%	7%	0%
3: Wheathill	40%	100%	25%	8%	17%
4: Woodbury Castle	31%	79%	29%	14%	14%
5: The Warren	34%	57%	14%	7%	7%
6: Model Airfield	35%	82%	27%	9%	36%
Pebblebed locations	33%	77%	24%	11%	12%
7: Exmouth Duck Pond	28%	64%	45%	27%	0%
8: Powderham	14%	60%	20%	0%	40%
9: Lympstone	13%	67%	67%	0%	67%
10: Goat Walk	23%	82%	73%	18%	9%
11: Dawlish Warren	36%	91%	45%	23%	32%
Exe Estuary locations	25%	79%	50%	19%	23%
Total	29%	78%	35%	14%	17%

Codes of conduct (Q25)

4.40 Interviewees on the Pebblebeds and Exe Estuary were asked if they were aware of any visit Codes of Conduct. Overall 34% (169 interviewees) were not aware of any, and 47% (236) were aware but unable to name any specific codes. Only 27 interviewees (6%) were able to name one or more than one specific codes.

4.41 The percentage who were aware, but unable to name specific codes, was greater amongst those on a short visit directly from home (49%, 227) compared to those on holiday (30%, 8), but still relatively high. Interestingly those who visited daily or more than once a day did not record high percentages (25%, 39 and 6%, 10 – although note smaller sample sizes). Those who had been visiting for more than 10 years included a very high proportion of those aware, but unable to name (83%, 123). For dog walkers

the awareness (but not explicit naming of) codes of conduct was also very high (92%, 142).

4.42 Figure 20 shows the knowledge of any codes of conduct was lower on the Exe Estuary, where 58% (121) unaware of codes, compared to 22% (48) on the Pebblebeds. On the Pebblebeds over 7 in 10 interviewees will have been aware of codes of conducted, compared to just under 4 in 10 on the Exe Estuary.

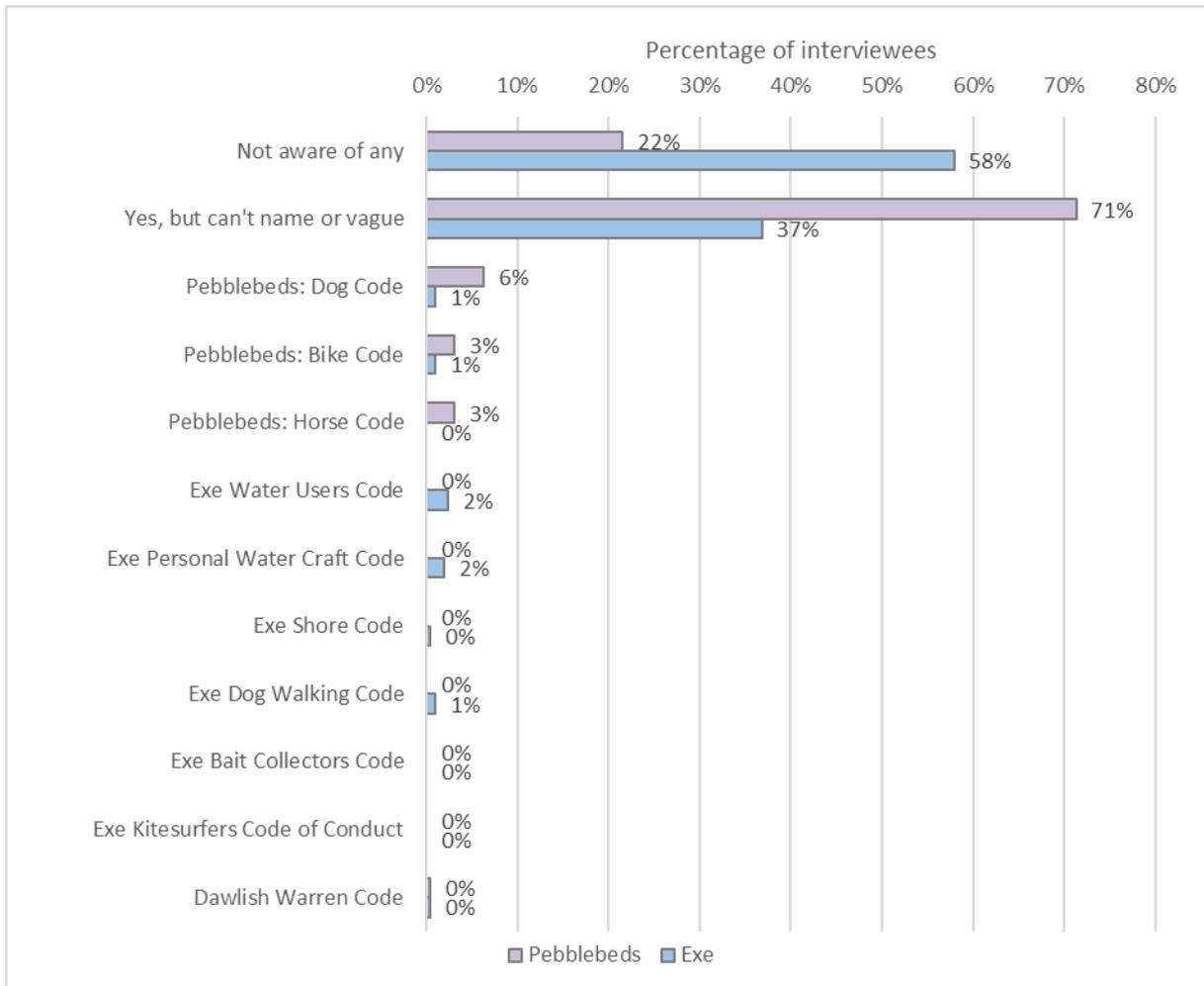


Figure 20: The percentage of interviewees who were aware of codes of conduct on the Pebblebeds and Exe Estuary.

Devon Loves Dogs (Q26-27)

4.43 Interviewees who were dog walking were asked if they had heard of, or were members of “Devon Loves Dogs”. Overall, 30% of dog walkers (86 interviewees) had heard of the organisation. A higher percentage of dog walkers had heard of the organisation at the Pebblebeds (36% of dog

walkers, 50 interviewees), compared to the Exe (30% of dog walkers, 27), and Dawlish Warren Country Park (15% of dog walkers, 9).

- 4.44 In total, 5% of all dog walkers interviewed were members of “Devon Loves Dogs”, and this percentage was 4% of dog walkers (3 interviewees) on the Exe Estuary, 6% (8) on the Pebblebeds and 3% (2) at Dawlish Countryside Park.

Estuary mitigation (Q28-29)

- 4.45 For the survey points along the Exe Estuary, we asked some specific questions regarding the interviewee’s awareness of the mitigation efforts. Across all the Exe Estuary survey points, 18% (37) of interviewees had seen the patrol boat, ranging from 25% (6) of interviewees at Lypstone to just 8% (3) at Powderham. Interviewees were then asked if they were aware of the wildlife refuges along the estuary. Across all the Exe Estuary interviewees, 53% (110) said they were aware of them, ranging from 85% (33) at Exmouth Duck Pond to 29% (14 interviewees) at Goat Walk.
- 4.46 Interviewees were not specifically asked how they had come to be aware of the wildlife refuges, however one of the kitesurfers interviewed at Exmouth Duck Pond said that they had heard about the wildlife refuges via Edge Watersports. Another interviewee at Exmouth Duck Pond, who was paddleboarding, had only become aware of the refuges as a result of overhearing other site users discussing the marker buoys, and this interviewee suggested putting leaflets on windscreens to increase awareness.

Preferred communication methods (Q30)

- 4.47 Interviewees were asked what were the “best ways of keeping visitors such as yourself informed about this area and the way it is managed?”. Interviewees were asked to rate 5 mechanisms for disseminating information from “1 - not useful” to “5 - very useful” and from these we were able to produce an average score for those who responded. Averaging the three scores for each area suggest the highest approval for noticeboards (3.6) and word of mouth (3.5), but lowest support for rangers (2.8) and leaflets (2.4). Figure 21 shows how these scores vary across sites, which will be in part due to the activities and demographics of site users and the prevalence of any specific issues.

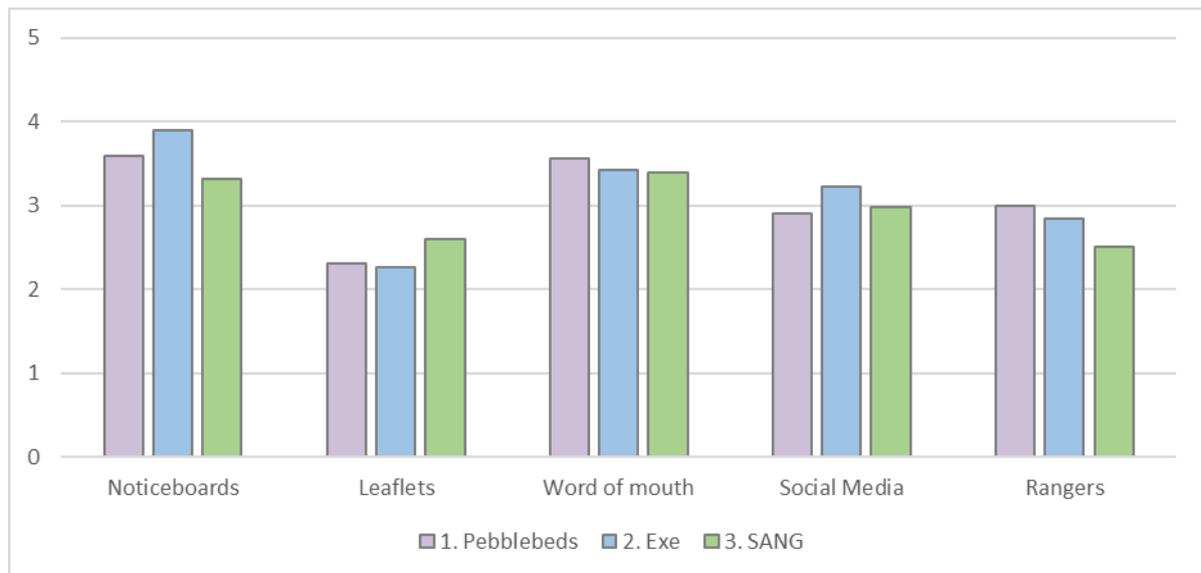


Figure 21: Averaged scores on preferred communication methods shown separately for the 3 areas.

Spirit of place (Q31-33)

4.48 Words chosen by interviewees at the Pebblebed Heaths to describe what the place means to them are shown in Figure 22. The most commonly given words were 'freedom' (41 interviewees), 'beautiful' (32 interviewees) and 'space' (26 interviewees).

Visitor origins (Q35-38)

- 4.49 Full, valid postcodes were obtained for 445 (89%) of the interviewees. The locations of these are shown in Maps 11-13 by the site at which they were interviewed, their visit type and their visit frequency.
- 4.50 Approximately half (46%) of the interviewees who gave full, valid postcodes lived in East Devon District, 26% were from Teignbridge District, 18% were from Exeter District and 2% were from Mid Devon District. Other local authorities accounted for less than 1% each.

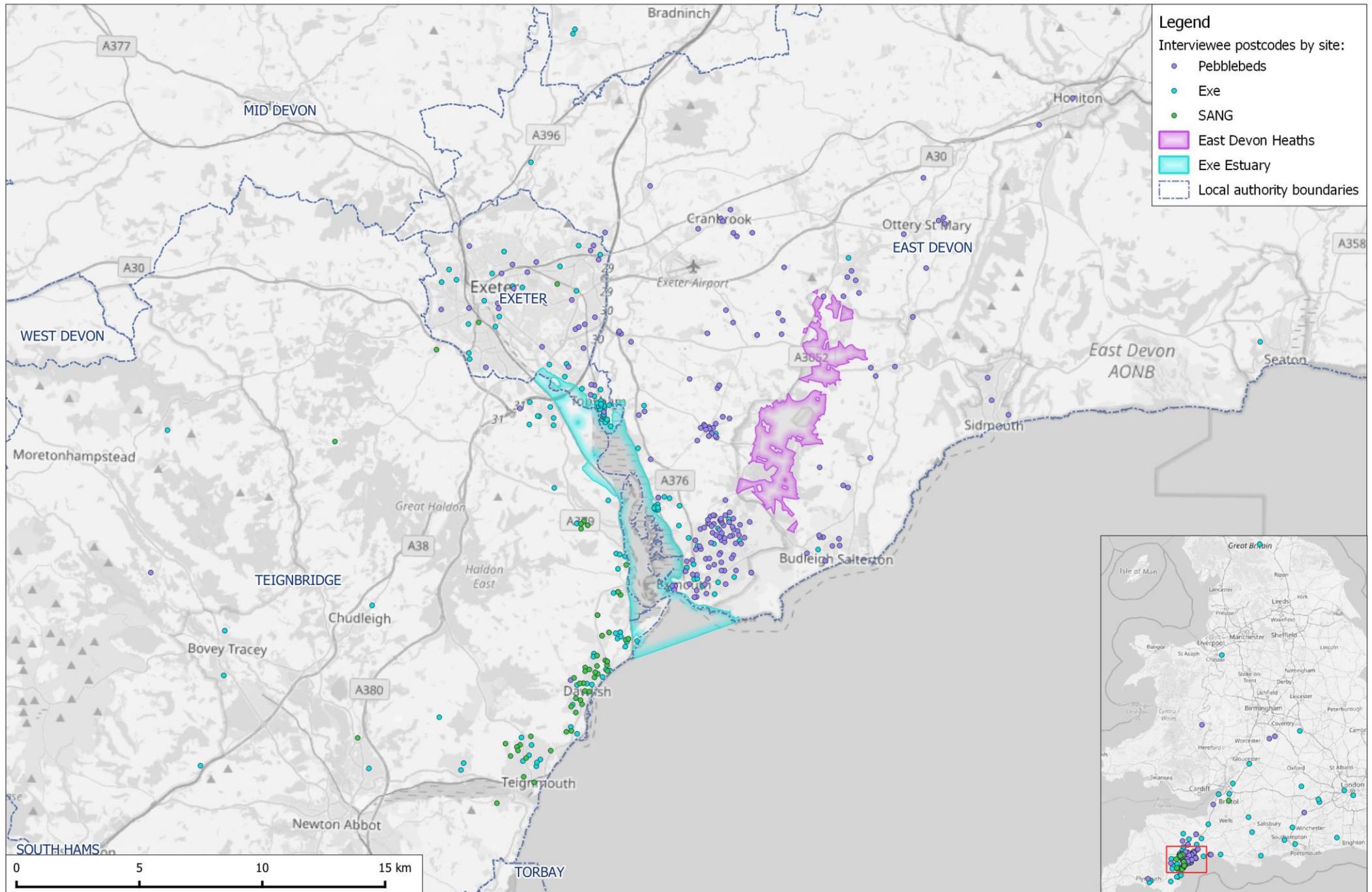
Linear distances

- 4.51 The mean linear distance from the interviewee's home postcode to the survey point at which they were interviewed was 16.7km and the median distance was 5.0km. Three quarters of all interviewees lived within 9.9km of the survey point at which they were interviewed. Data for different types of visitors are summarised in Table 10.

Table 10: Summary statistics for linear distance (km) from interviewee home postcode to survey location, for different groups of interviewees. N is the total number of interviewees within that category for which we have full, valid postcodes.

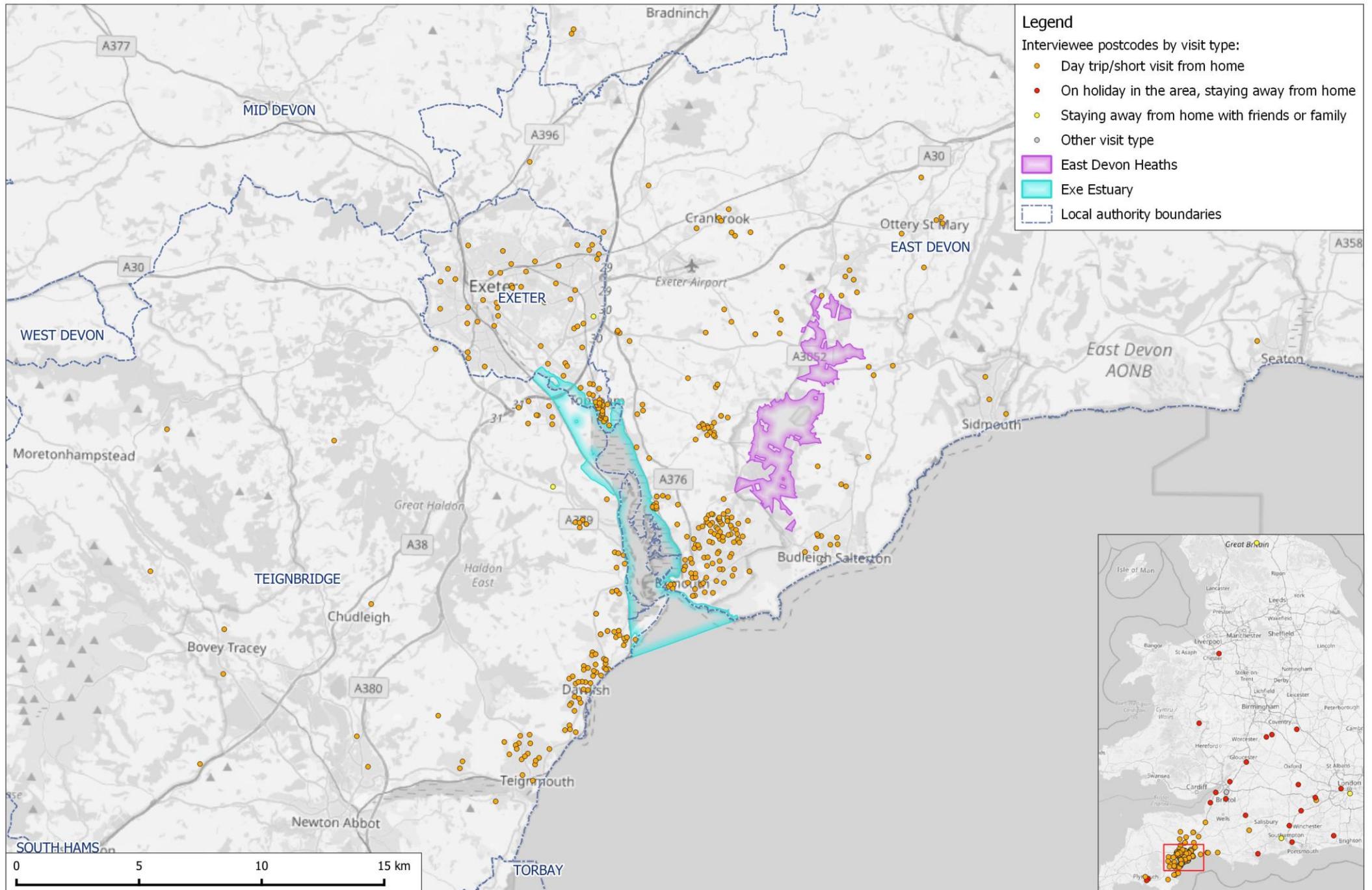
	Category	N	Range	Mean (\pm SE)	Median	Q3
	All interviewees	445	0.0 - 444.5	16.7 \pm 2.1	5.0	9.9
Visit type	Day trip/short visit from home	417	0.0 - 204.8	7.5 \pm 0.7	4.6	8.6
	On holiday	21	52.2 - 287.8	159.9 \pm 13.8	160.7	205.2
	Staying with friends/family	5	2.5 - 444.5	169.2 \pm 82.5	139.7	346.8
Survey location	1: Joney's Cross	28	1.9 - 182.2	14.9 \pm 6.3	8.0	10.5
	2: Four Firs	41	1.9 - 82.8	7.4 \pm 2.0	5.0	7.0
	3: Wheathill	28	2.4 - 62.5	7.7 \pm 2.1	4.4	8.8
	4: Woodbury Castle	41	1.4 - 199.2	16.3 \pm 6.1	6.9	11.6
	5: The Warren	36	2.6 - 205.0	12.8 \pm 5.6	6.0	8.1
	6: Model Airfield	28	2.5 - 25.9	5.3 \pm 0.8	4.2	5.7
	Pebblebed locations	202	1.4 - 205.0	11.0 \pm 1.9	5.3	8.5
	7: Exmouth Duck Pond	30	0.4 - 191.4	18.5 \pm 6.8	3.2	24.4
	8: Powderham	31	0.4 - 213.4	33.8 \pm 9.7	11.2	24.1
	9: Lypmstone	21	0.3 - 287.8	36.2 \pm 18.2	0.9	11.2
	10: Goat Walk	46	0.0 - 444.5	24.0 \pm 11.4	0.8	6.6
	11: Dawlish Warren	56	0.3 - 243.0	25.3 \pm 7.0	9.2	16.4
Exe Estuary locations	184	0.0 - 444.5	26.5 \pm 4.5	4.2	15.4	
	12: Dawlish Countryside Park	59	0.3 - 107.4	5.8 \pm 1.8	3.2	5.9
Main activity	Dog walking	262	0.0 - 204.8	7.6 \pm 1.2	3.7	6.0
	Walking	131	0.2 - 444.5	33.0 \pm 6.1	8.5	15.3
	Cycling	14	2.0 - 19.2	7.0 \pm 1.1	6.5	8.3
	Wildlife / birdwatching	11	2.5 - 182.2	42.4 \pm 17.2	20.1	37.4
	Running / jogging	11	1.5 - 8.8	5.4 \pm 0.8	5.4	8.3
Visit frequency	More than once a day	17	0.4 - 4.2	1.6 \pm 0.3	0.9	2.6
	Daily	59	0.0 - 8.0	2.9 \pm 0.3	2.8	4.7
	Most days	68	0.1 - 10.9	3.1 \pm 0.3	3.2	4.5
	1 to 3 times a week	140	0.2 - 82.8	5.7 \pm 0.7	4.1	7.5
	2 to 3 times per month	45	0.3 - 205.3	15.6 \pm 5.0	7.7	12.0
	Once a month	49	1.9 - 204.8	22.5 \pm 5.5	10.0	16.9
	Less than once a month	38	2.0 - 287.8	44.2 \pm 11.6	15.9	31.6

Map 11: Postcodes of interviewees, coloured by site

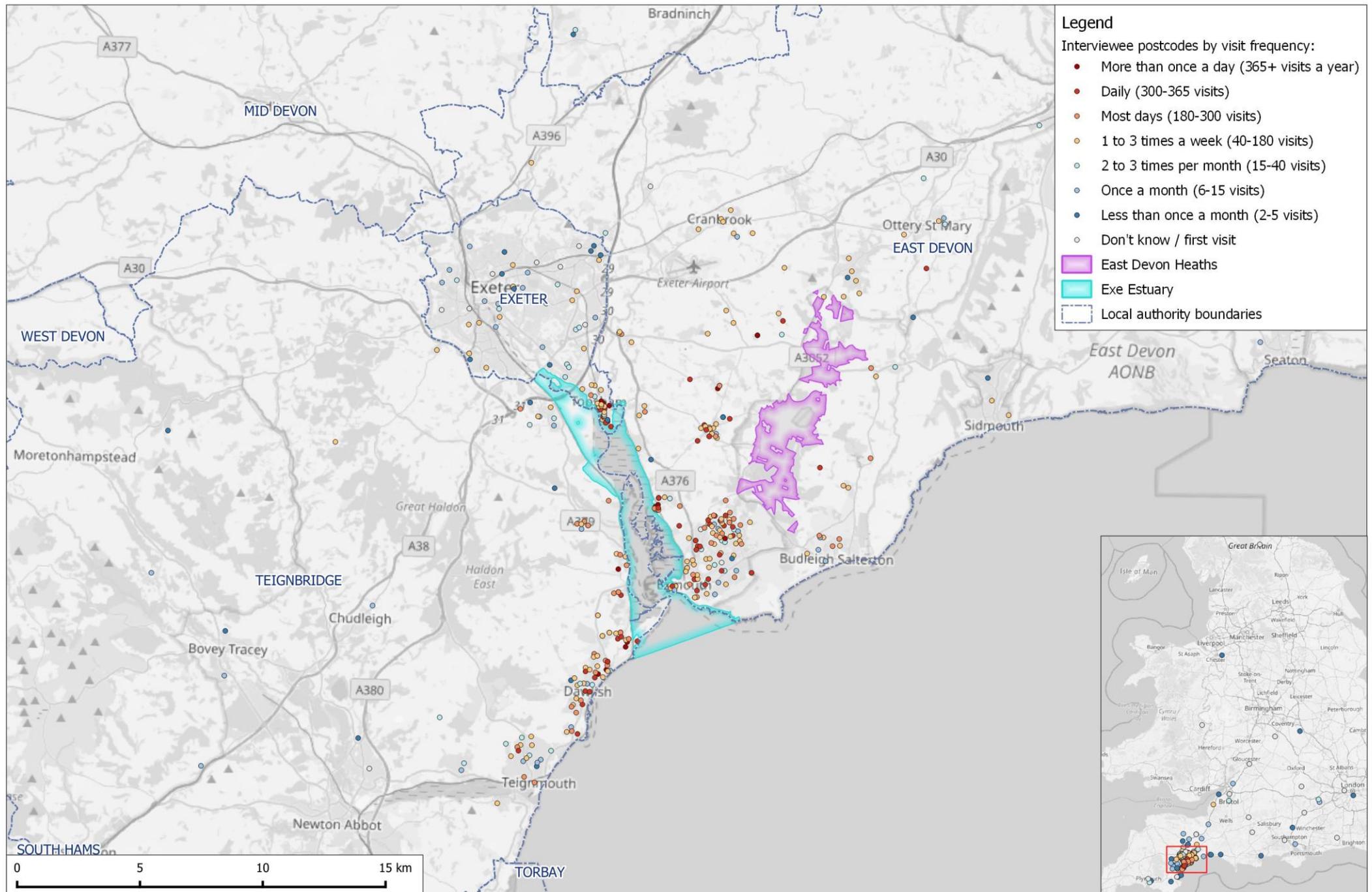


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Map 12: Postcodes of interviewees, coloured by visit type



Map 13: Postcodes of interviewees, coloured by visit frequency



5. Comparison with previous surveys

- 5.1 Previous surveys were undertaken in 2010 (Exe Estuary) and 2015 (Pebblebed Heaths) and used broadly similar methods. Comparisons provide some opportunities to check how access has changed.
- 5.2 In order to ensure as like-for-like a comparison as possible we have filtered the data from each survey to give the closest match in terms of survey effort, survey locations and timing (so for example we have excluded the data from the Turf survey point on the Exe which was surveyed in 2010 but not in 2020/21. There are of course important caveats to note in that the surveys are 'snapshots' in time and represent just 2 days at each location in the most recent survey which also coincided with the Covid pandemic.
- 5.3 In Table 11 we provide a summary of selected metrics, drawing on the relevant data from the different surveys. We have included Dawlish Countryside Park in the table simply to allow a comparison across the different sites.
- 5.4 The data suggest a number of changes. Most striking is the change in the number of visitors, with marked increases suggested at all sites. The data show overall totals of footfall per hour are more than double on the Exe Estuary (excluding Dawlish Warren) and on the Pebblebed Heaths compared to the previous survey. The change at the Pebblebed Heaths from 12.6 people entering per hour in 2015 to 26.9 people per hour in 2021 represents a 213% increase over 6 years.
- 5.5 The mean number of dogs per group appears to have dropped slightly at all sites, suggesting perhaps that there have been bigger increases in the use from those visiting without dogs. The percentage of interviewees who gave dog walking as their main activity decreased on the Pebblebeds (78% to 63%) but increased at the other sites. The percentage of people who stated walking was their main activity appears to have increased at all sites, particularly the Pebblebeds (8% of interviewees to 25%).
- 5.6 We have included the number of interviews in the table as a reference for the sample size but differences in the number of interviews between years will not reflect overall visitor numbers as only a small proportion of people are interviewed and the number of refusals and length of questionnaire was different in each survey (with the length of time taken to conduct an

interview obviously influencing the number of interviews that can be achieved with a given level of survey effort).

- 5.7 There appears to be a difference at Dawlish in the proportion of local residents using the site on a short visit from home, with an increase from 77% in 2010 to 89% in 2020.
- 5.8 Close to home appears to be a stronger factor influencing site choice now for those at Dawlish compared to 2010 (cited by 13% in 2010 and 54% in 2020) while by contrast it appears to have dropped in priority for those visiting the Pebblebeds (cited by 37% of interviewees in 2015 and just 22% in 2021).
- 5.9 There were no clear differences in the postcode data between the different surveys, suggesting that people who visit the relevant sites are not living any further afield or closer now compared to the previous survey. Mann-Whitney tests comparing the median values for the distance from home postcode to survey point for Dawlish Warren (2010 and 2020), Pebblebeds (2015 and 2021) and Exe Estuary (2010 and 2020), using the comparable data from the same survey points, were not significant (significance >0.05 in all cases).
- 5.10 Tally data for the comparable surveys are explored in more detail in Figure 23. In these plots each dot is a survey point and the data for the base year (2015 for Pebblebeds, 2010 for the Exe) are shown on the x axis while the more recent data are shown on the y axis. Were the data to be the same in the two surveys we would expect all points to be on the diagonal 1:1 line. Where points are above the diagonal line then there has been an increase in use.
- 5.11 By plotting the data in this way it is possible to determine whether any change has been consistent across all locations. For example, if all points are above the line but parallel to it, it suggests that the increase has been consistent across locations.
- 5.12 From these plots it is clear that all the numbers from the tally counts are higher at all locations compared to previous surveys with the exception of one survey point on the Exe, Lypstone. This is the case in all three plots and shows increases in visitor numbers across all locations. It should be noted that the survey point at Lypstone was slightly different in 2020 compared to 2010 (see Map 1) and this may explain the difference. The site that has seen the most marked increase is Topsham (Goat Walk). Changes seem more consistent on the Pebblebeds though Four Firs perhaps stands

out in that the data suggest a disproportionate increase in the number of dogs entering at that location.

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Table 11: Selected metrics from the 2020/2021 survey and previous surveys. ‘*’ indicates that the metric is extracted only for those on a short visit/day trip directly from home. Note the data in the table below have been filtered to provide like for like comparison and therefore selected survey points have been excluded. Red text indicates the higher value for column pairs.

Metric	Dawlish Warren 2010	Dawlish Warren 2020	Exe 2010 ¹	Exe 2020/21 ²	Pebblebeds 2015	Pebblebeds 2021	Dawlish Countryside Park 2021
Months when fieldwork conducted	Feb	Feb	Feb-March	Feb-Mar; Sep-Oct	May/June	April-June	June
Number of survey points	1	1	4	4	5	5	1
Total hours fieldwork	16	16	64	64	80	80	16
Mean group size (from tally)	2.2	2.2	1.7	1.8	1.7	1.9	1.7
Mean number of dogs per group (from tally)	0.7	0.6	0.5	0.4	1.1	0.9	1.2
Mean people counted per hour (from tally)	38.1	58	14.6	32.6	12.6	26.9	39
Mean people counted per hour, entering only (from tally)	20.5	30.1	7.5	16.9	6.5	12.4	18.6
Number of interviews	94	61	259	148	207	223	67
% interviewees on short day visit from home	77	89	87	87	94	97	97
% interviewees with dog walking stated as main activity*	46	69	31	36	78	63	89
% interviewees with walking stated as main activity*	20	28	34	40	8	25	9
% interviewees arriving by car*	74	80	40	46	98	97	88
% interviewees visiting daily or more than once a day* ³	28	28	(42) ³	14	19	16	18
% interviewees giving ‘close to home’ as main reason for site choice*	13	54	29	36	37	22	22
Median route length of interviewees (km)	1.96	2.1	1.78	2.99	3.1	2.46	1.68
Median distance from survey point to home postcode (km)*	3.24	4.33	2.89	2.29	5.31	5.26	3.19
75 th percentile distance from survey point to home postcode (km)*	14.84	15.22	16.81	9.89	7.54	8.23	5.48
Median distance from survey point to home postcode (km)	8.39	9.16	2.89	3.01	5.36	5.32	3.21
75 th percentile distance from survey point to home postcode (km)	81.95	16.27	16.81	12.17	7.63	8.5	5.7

South East Devon Visitor Survey 2020-2021

- 1: To allow direct comparison these are only data from Topsham, Lympstone, Powderham and Exmouth Duck Pond and just using the standard survey (in 2010 additional targeted surveys were added for certain weather conditions and these data are excluded).
- 2: To allow direct comparison these are only data from Topsham, Lympstone, Powderham and Exmouth Duck Pond.
- 3: Note that the figures for the Exe are not strictly comparable as the categories for frequency of visit used in the two surveys were different and in 2010 the most frequent category was "most days"; therefore the 42% figure includes daily and those visiting most days.

South East Devon Visitor Survey 2020-2021

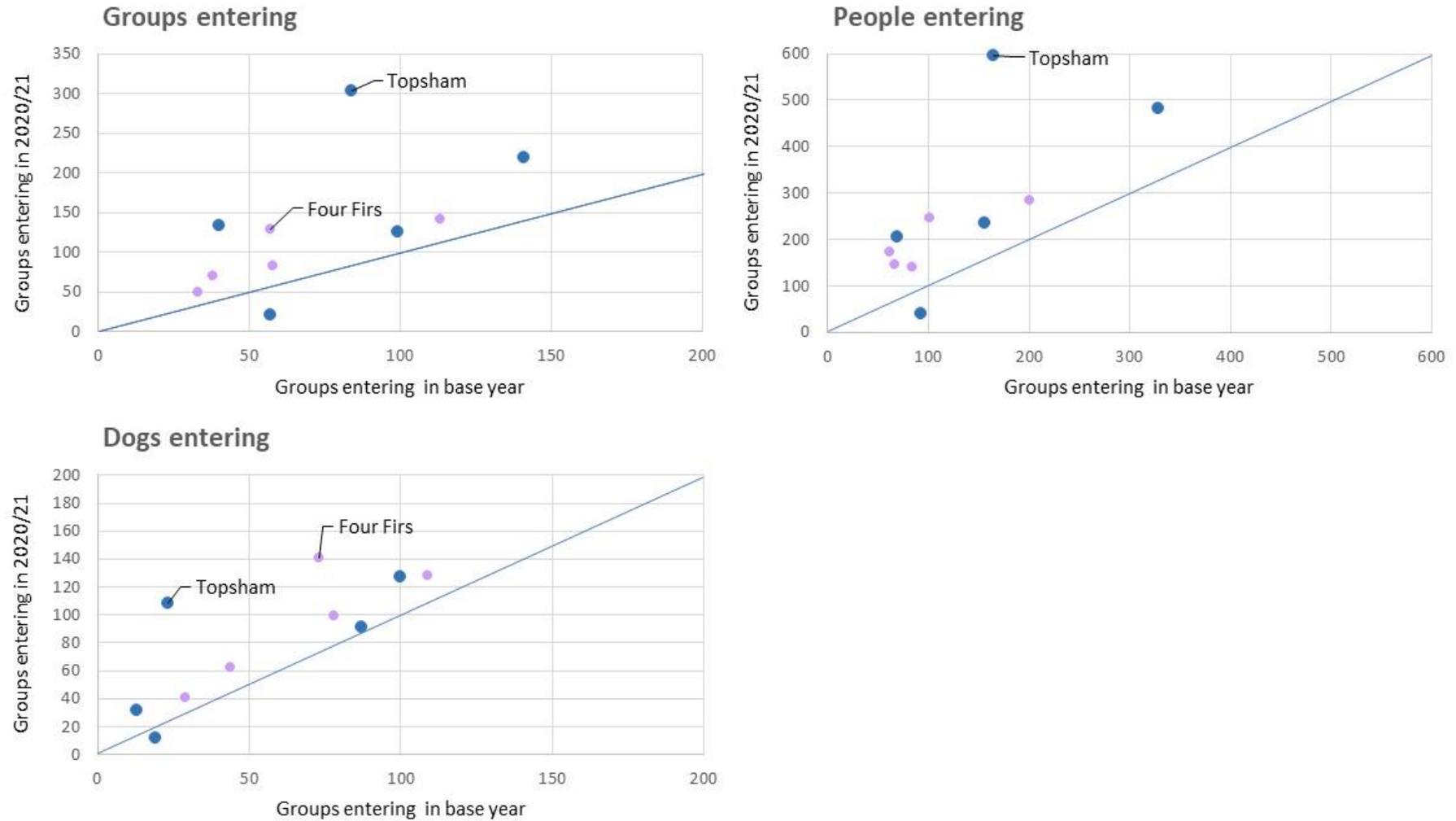


Figure 23: Comparisons of tally data from different years of survey. The base year for the Exe surveys was 2010 and for the Pebblebeds it was 2015. Blue circles are Exe Estuary survey points (including Dawlish Warren) and purple circles are Pebblebed survey points. Diagonal lines show the 1:1 relationship.

6. Discussion

- 6.1 The survey results provide a snapshot into the levels of use and insights into visitor behaviour at a selection of adjacent countryside sites. The results provide direct comparison between locations and will help inform future management and mitigation delivery. In this section we provide context and consider some of the implications of the findings.

Context

- 6.2 The survey results from 2020/21 provide a snapshot of visitor use at on the Exe Estuary, Pebblebed Heaths and the Dawlish Countryside Park. Some of the surveys (on the Exe Estuary) were undertaken prior to the Covid pandemic, in the early part of 2020 while other sites were surveyed just as restrictions relating to Covid were being relaxed but at a time where the pandemic would still have been affecting people's decisions regarding travel and where to go.
- 6.3 Visitor numbers have increased very markedly at the Exe Estuary and Pebblebed Heaths since the last surveys and this higher footfall potentially means increased pressure on the respective sites. The increase in use could be linked to Covid as well as changes such as increases in local development.
- 6.4 It is widely recognised that the pandemic has had a marked effect on how people use local greenspaces (Burnett et al., 2021; Natural England and Kantar Public, 2021; Randler et al., 2020). Outdoor space – during the pandemic – has become the safe place and default location for many for exercise and for socialising, and there is a continued and growing importance of urban green spaces in particular as spaces to connect with nature and each other (Natural England and Kantar Public, 2021). It is therefore perhaps not surprising that the 2021 visitor survey results show some marked changes from previous surveys, in particular in the overall number of visitors, the reasons behind site choice and the behaviour. Looking to the future it is not clear how patterns of use will further change following the pandemic and whether the increased levels of countryside access are a new 'normal'. Climate change is also likely to be a driver of change in recreational use (Coombes and Jones, 2010; McEvoy et al., 2008). Long term monitoring will therefore be important to pick up emerging trends and the drivers behind those trends.

Implications: zone of influence

- 6.5 There is no evidence that the zones of influence as currently established need to change (the 9.9km 75th percentile for all interviewees closely reflects the 10km used in the mitigation strategy).

Implications: role of SANG in mitigation

- 6.6 The results from this survey indicate that Dawlish Countryside Park is well used and draws a high number of dog walkers, a target audience for the SANG given the particular impacts associated with dogs off-lead (De Frenne et al., 2022; Gómez-Serrano, 2021; Groome et al., 2018; Liley et al., 2011).
- 6.7 The results show that the SANG is deflecting use away from the European sites. For example, 44% of the interviewees on the Exe Estuary had visited Dawlish Countryside Park. Furthermore, when asked which single alternative location visitors at the SANG would have gone to instead, Dawlish Warren was the most popular alternative (cited by 13 interviewees, 19% of interviewees at the SANG). Furthermore, those using Dawlish Countryside Park are doing so regularly (45% of those interviewed visiting more than once a day, daily or most days), suggesting that the site is working to draw frequent dog walkers.
- 6.8 SANGs have been a key element in strategic mitigation for European sites in other parts of the country, for example around the Thames Basin Heaths and the Dorset Heaths. The data presented here provide strong evidence that the approach is relevant for coastal sites, particularly for dog walkers. It is interesting to note that the median route length on the SANG (1.68km) is less than that on the nearby European sites (e.g. 2.1km for Dawlish Warren in 2020) and yet the SANG still seems to work. Providing the potential for longer routes may enhance the potential for SANGs to draw more use.
- 6.9 The postcode data (Map 11) show that Dawlish Countryside Park draws visitors from the local area, including Dawlish but that visitors using the site are also coming from Exeter and Newton Abbot. The SANG therefore works for the western side of the Exe Estuary. The postcode data for the European sites highlights the high numbers of interviewees originating from Exmouth and there is a potential need for SANG on the eastern side of the Estuary.

Implications: access management measures on the respective sites

- 6.10 The results suggest a reasonable level of awareness among interviewees that the sites they were visiting were protected (59% of interviewees at the Pebblebeds and 76% of interviewees at the Exe Estuary were aware that the site had environmental protection). Furthermore some 84% of interviewees at the Pebblebeds and 78% at the Exe Estuary could name a group of species or habitat for which the site was important. These figures would suggest that visitors are well informed. It is interesting to perhaps note (from Figure 19) that it is awareness of birds that predominates, even on the Pebblebeds.
- 6.11 It would seem the on-site ranger presence has reached a reasonable proportion of visitors, with a third of interviewees (33%) at the Pebblebeds and a quarter of interviewees (25%) on the Exe Estuary having met one of the rangers or mitigation officers. There is clearly scope to increase these percentages and Powderham and Lympstone were the two sites with the lowest percentages of visitors having met a ranger. The locations with the highest percentages – at Dawlish Warren (36%) and the Exmouth Duck Pond (28%) – are potentially the more sensitive and reflect the locations of the refuges, so this potentially reflects that wardening effort is focussed in the right locations.
- 6.12 The responses to membership of “Devon Loves Dogs” indicate a relatively low membership among dog walkers, with just 5% of dog walking interviewees stating they were members. This could reflect the relative infancy of the organisation and suggests there is scope to boost membership, especially at Dawlish Countryside Park, where just 2 members were interviewed.
- 6.13 There was little variation in the interviewee responses to the preferred means of being kept informed about management and other issues at the location where interviewed. Rangers scored slightly lower on average compared to noticeboards, word of mouth and social media. The question was specific around being kept informed and does not therefore reflect the role played by some of these communication methods in influencing behaviour or informing visitors about the nature conservation importance of sites. The responses reflect that a range of approaches are perhaps likely to be effective in maximising the reach of any communication.

- 6.14 The questionnaire included interviewee comments and general feedback and these data have been shared with the respective site managers and provide specific information regarding changes visitors would like to see or particular issues at sites.

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Appendix 1: Questionnaire

Survey questionnaire used in the face-to-face interviews. As indicated, some of the questions were site-specific and so were not asked at all survey locations.



FOOTPRINT ECOLOGY

www.footprint-ecology.co.uk

Good morning/afternoon. I am conducting a survey on behalf of the local authority, who wants to better understand recreational use across South East Devon. Can you spare me a few minutes please?

Q1 **Firstly,**

- Are you on a day trip/short visit and travelled from home today ... *if no*
- Are you staying away from home with friends or family ... *if no*
- Are you on holiday in the area, staying away from home
- If none of the above, **How would you describe your visit today?**

Details

Q2 *if on holiday: What type of accommodation are you staying in? Tick closest answer. Do not prompt. Single response only.*

- Hotel/Motel
- Bed & Breakfast
- Pub/Inn/Guesthouse
- Self-catering
- Second home
- Campervan/campsite
- Home of friend/relative
- Other, please detail:

Further details

Q3

What is the main activity you are undertaking today? *Tick closest answer. Do not prompt. Single response only. Ensure activity rather than reason for undertaking (e.g. not "health", "relaxing" etc.)*

- Dog walking
- Walking
- Running / jogging / power walking
- Cycling
- Wildlife / birdwatching
- Fishing
- Photography
- Windsurfing
- Kitesurfing
- Boating (give details)
- Canoeing / kayaking
- Paddleboarding
- Bait digging / cockling / crab tiling
- Meeting up with friends
- Other, please detail:

Further details

Q4 **How long have you been visiting this location?** *Single response only. Do not prompt.*

- First visit
- less than or approximately 6 months
- less than or approximately 1 year
- less than or approximately 3 years
- less than or approximately 5 years
- less than or approximately 10 years
- more than 10 years
- Don't know / not sure

Q5 **How long have you spent / will you spend here today?** *Single response only. Do not prompt.*

- Less than 30 minutes
- Between 30 minutes and 1 hour
- 1 to 2 hours
- 2 to 3 hours
- More than 3 hours
- Don't know / not sure

Q6 **Over the past year, roughly how often have you visited this location?** *Tick closest answer, single response only. Only prompt if interviewee struggles.*

- More than once a day (365+ visits a year)
- Daily (300-365 visits)
- Most days (180-300 visits)
- 1 to 3 times a week (40-180 visits)
- 2 to 3 times per month (15-40 visits)
- Once a month (6-15 visits)
- Less than once a month (2-5 visits)
- Don't know / first visit
- Other, please detail

Further details

Q7 *[2021 only]* **Has your use of this place changed due to the Covid-19 situation during the past year?** *Single response only. If necessary, prompt with 'For example, has the frequency of your visits changed?'*

- Yes, started visiting here for the first time/not been here for a long time
- Yes, been here more than usual
- Yes, been here less than usual
- Yes, come at a different time of day
- Yes, use for different activity
- No, visiting the same as before
- Not sure/don't know

Further details

Q8 **Do you tend to visit here at a certain time of day?** *Tick closest answers. Multiple answers ok.*

- Before 9am
- Between 9am and 12pm
- Between 12 and 3pm
- Between 3 and 5pm
- After 5pm
- Varies
- Don't know / first visit

Q9 **Do you tend to visit this area more at a particular time of year for [insert given activity]?** *Multiple answers ok.*

- Spring (Mar-May)
- Summer (Jun-Aug)
- Autumn (Sept-Nov)
- Winter (Dec-Feb)
- Equally all year
- Don't know / first visit

Q10 **How did you get here today?** What form(s) of transport did you use? *Multiple responses ok.*

- Car / van
- On foot
- Bicycle
- Train
- Bus
- Other, please detail

Further details:

Now I'd like to ask you about your route today. Looking at the area shown on this map, can you show me where you started your visit today, the finish point and your route please. Probe to ensure route is accurately documented.

Use **P** to indicate where the visitor parked, **E** to indicate the start point and **X** to indicate the exit.

Mark the route with a line; a solid line for the actual route and a dotted line for the expected or remaining route.

Q11 *[For Exe Estuary only]* **Can I check, did/will you, or any of your party (including dogs) go onto the open sandflats/mudflats at all?** *Single response only.*

- Yes, one or more people
- Yes, but dog(s) only
- Don't know
- No

Q12 **Is / was your route today the normal length when you visit here for [insert given activity]?** *Tick closest answer, do not prompt. Single response only.*

- Yes, normal
- Much longer than normal
- Much shorter than normal
- Not sure / no typical visit / first visit

Q13 **What, if anything, influenced your choice of route here today?** *Tick closest answers, do not prompt. Multiple responses ok.*

- Weather
- Daylight
- Time
- Away from other people (not busy)
- Group members (e.g. kids, less able)
- Avoiding muddy tracks / paths
- Staying on surfaced paths
- Followed a marked trail
- Previous knowledge of area / experience
- Activity undertaken (e.g. presence of dog, add details)
- Viewpoint / Feature
- Scenery (e.g. views from a certain direction)
- Tide
- Birds / wildlife
- Interpretation / leaflets
- Other, please detail

Further details:

Q14 Why did you choose to visit this specific place today, rather than another location?
Tick all that apply, do not prompt.

- | | |
|---|-----------------------|
| Don't know / others in party chose | <input type="radio"/> |
| Close to home | <input type="radio"/> |
| No need to use car | <input type="radio"/> |
| Quick & easy travel route | <input type="radio"/> |
| Good / easy parking | <input type="radio"/> |
| Free parking | <input type="radio"/> |
| Particular facilities | <input type="radio"/> |
| Refreshments / cafe / pub | <input type="radio"/> |
| Choice of routes | <input type="radio"/> |
| Feels safe here | <input type="radio"/> |
| Quiet, with no traffic noise | <input type="radio"/> |
| Not many people | <input type="radio"/> |
| Scenery / variety of views | <input type="radio"/> |
| Rural feel / wild landscape | <input type="radio"/> |
| Habit / familiarity | <input type="radio"/> |
| Particular wildlife interest | <input type="radio"/> |
| Good for dog / dog enjoys it | <input type="radio"/> |
| Ability to let dog off lead | <input type="radio"/> |
| Closest place to take dog | <input type="radio"/> |
| Closest place to let dog safely off lead | <input type="radio"/> |
| Appropriate place for activity | <input type="radio"/> |
| Suitability of area in given weather conditions | <input type="radio"/> |
| Presence of water | <input type="radio"/> |
| For a change/variety | <input type="radio"/> |
| Other, please detail | <input type="radio"/> |

Further details:

Q15 **Could you name one location you would have visited today for [insert given activity] if you could not visit here? Do not prompt. Single response only.**

- Not sure / don't know
- Nowhere / wouldn't have visited anywhere
- Aylesbeare Common
- Woodbury Common / Woodbury Castle
- Four Firs
- elsewhere on the Pebblebed Heaths
- Exmouth
- The Maer, Exmouth
- Dawlish Warren
- Dawlish Countryside Park
- Topsham
- River Otter
- Haldon Forest
- Dartmoor
- Other site:

Record site name:

Q16 *[Exe Estuary and Pebblebeds only]* **If Dawlish Countryside Park not named above: Have you visited Dawlish Countryside Park before?**

- Yes
- No

Q17 *If yes,* **How often do you visit Dawlish Countryside Park?**

- Daily
- Most days
- 1 to 3 times a week
- 2 to 3 times a month
- Once a month
- Less than once a month
- Don't know

Q18 *[Exe Estuary and Pebblebeds only]* **Are you aware of any designations or environmental protections that apply to this area? If so, can you name them?** *Do not prompt. Tick any that are mentioned. Multiple responses ok.*

- Not aware of any
- Yes, but not able to name
- SSSI mentioned (or "special scientific interest" etc.)
- SPA / SAC / Ramsar / European site mentioned
- Nature reserve
- AONB
- Common or common land
- General comment about importance for birds
- General comment about importance for habitat
- General comment about importance for dragonflies/damselflies
- Other, please detail

Further details:

Q19 *[Exe Estuary and Pebblebeds only]* **Are you aware of any important wildlife species or habitats present in this area? If so, can you name them?** *Do not prompt. Tick any that are mentioned. Multiple responses ok.*

- Not aware of any
- Yes, but can't name or vague
- Birds in general
- Nightjar
- Dartford Warbler
- Heathland / heaths / dry heathland / wet heathland
- Southern Damselfly
- Reptiles e.g. smooth snake
- Wading birds or wildfowl
- Wetland / marshes
- Eelgrass / seagrass / Zostera
- Sand dunes / slacks
- Other, please detail

Further details:

Q20 *[Exe Estuary and Pebblebeds only]* **Have you met any of the rangers or mitigation officers who work here?**

- Yes
- No
- Don't know

Q21 *If yes,* **Have you spoken to any of them?**

- Yes
- No
- Don't know

Q22 *If yes,* **As a result of the rangers being present, have you learnt more about the local wildlife?**

- Yes
- No
- Don't know

Q23 *If yes,* **As a result of the rangers being present, have you changed what you do?**

- Yes
- No
- Don't know

Q24 *If yes,* **As a result of the rangers being present, do you feel safer visiting here?**

- Yes
- No
- Don't know

Q25 *[Exe Estuary and Pebblebeds only]* **Are you aware of any codes of conduct that have been produced for this area? If so, which one(s)?** *Do not prompt. Tick any that are mentioned. Multiple responses ok.*

- Not aware of any
- Yes, but can't name or vague
- Pebblebeds: Dog Code
- Pebblebeds: Bike Code
- Pebblebeds: Horse Code
- Exe Water Users Code
- Exe Personal Water Craft Code
- Exe Shore Code
- Exe Dog Walking Code
- Exe Bait Collectors Code
- Exe Kitesurfers Code of Conduct
- Dawlish Warren Code

Q26 *[Dog walkers only]* **Have you heard of Devon Loves Dogs?**

- Yes
- No
- Not sure

Q27 *If yes,* **Are you a member?**

- Yes
- No
- Not sure

Q28 *[Exe Estuary only]* **Have you seen the patrol boat on the estuary?**

- Yes
- No
- Not sure

Q29 *[Exe Estuary only]* **Are you aware of the wildlife refuges on the estuary?**

- Yes
- No
- Not sure

Q30 What are the best ways of keeping visitors such as yourself informed about this area and the way it is managed? Please score each of the following on a scale of 1 to 5, where 1 is not useful and 5 is very useful. *Order of questions will be randomised.*

	1 - not useful	2	3	4	5 - very useful	Don't know
Noticeboards	<input type="radio"/>					
Leaflets	<input type="radio"/>					
Word of mouth	<input type="radio"/>					
Social media	<input type="radio"/>					
Ranger contact	<input type="radio"/>					

[Pebblebeds only] **What three words describe what the Pebblebed Heaths mean to you? This could be a feeling, a feature of the place or something it enables you to do. Do not prompt. Order of words is not important.**

Q31 First word:

Q32 Second word:

Q33 Third word:

Q34 Do you have any further comments or general feedback about your visit, access to this area and what you would like to see in the future? *Free text*

Q35 **What is your full home postcode?** *This is an important piece of information, please make every effort to record correctly.*

Q36 *If visitor is unable or refuses to give postcode:* **What is the name of the nearest town or village?**

Q37 **How long have you lived at that postcode?**

- Less than a year
- 1-5 years
- 6-10 years
- 11 years +

Q38 *If visitor is on holiday ask:* **Which town / village are you staying in?**

That is the end. Thank you very much indeed for your time.

TO BE COMPLETED AFTER INTERVIEW FINISHED

Q39 Survey details

Surveyor initials

Survey location code

Map reference number

Gender of respondent
(M/F)

Total number in
interviewed group

Total males

Total females

Total minors (under 18)

Number of dogs

Number of dogs seen
off lead

Q40 **Did the interviewee appear to be part of an organised group, e.g. Ramblers, fitness group, Duke of Edinburgh expedition?**

Yes, interviewee part of an organised group

Q41 **Surveyor comments.** *Note anything that may be relevant to the survey, including any changes to the survey entry that are necessary, e.g. changes to answers, additional information*

Appendix 2: Footfall summary from visitor counts

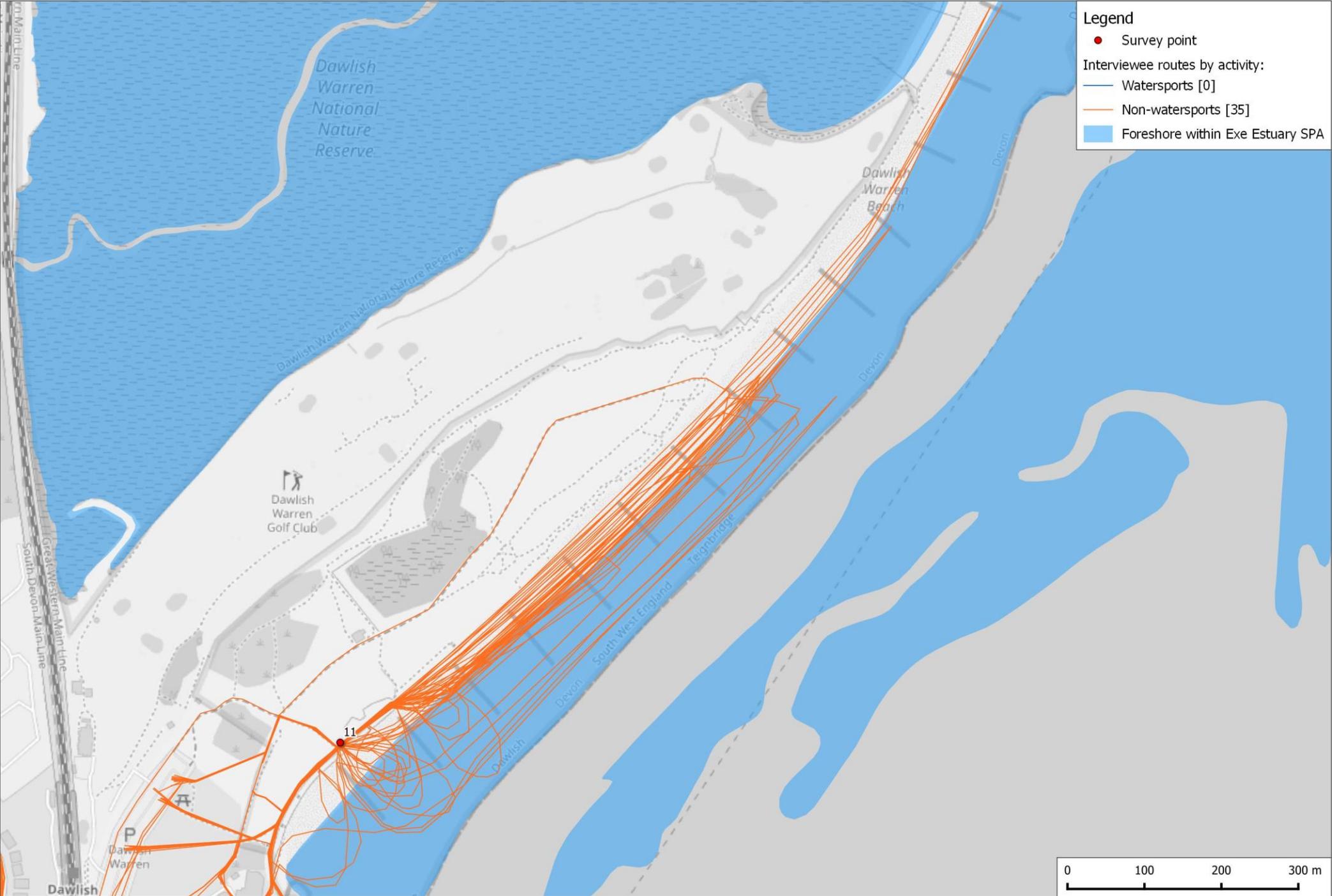
The table below summarises the footfall (all people recorded entering, leaving or passing) at each survey point. The highest 3 values in each column are highlighted in red, the lowest 3 are highlighted in blue.

	Total people	Total groups	People per hour	Group size
1: Joney's Cross	306	142	19.1	2.2
2: Four Firs	518	290	32.4	1.8
3: Wheathill	301	146	18.8	2.1
4: Woodbury Castle	671	324	41.9	2.1
5: The Warren	352	197	22.0	1.8
6: Model Airfield	287	207	17.9	1.4
7: Exmouth Duck Pond	474	272	29.6	1.7
8: Powderham	367	242	22.9	1.5
9: Lympstone	87	47	5.4	1.9
10: Goat Walk	1,161	590	72.6	2.0
11: Dawlish Warren	921	415	57.6	2.2
12: Dawlish Countryside Park	621	376	38.8	1.7
Total	6,066	3,248	31.6	1.9

Appendix 3: Routes that entered intertidal areas

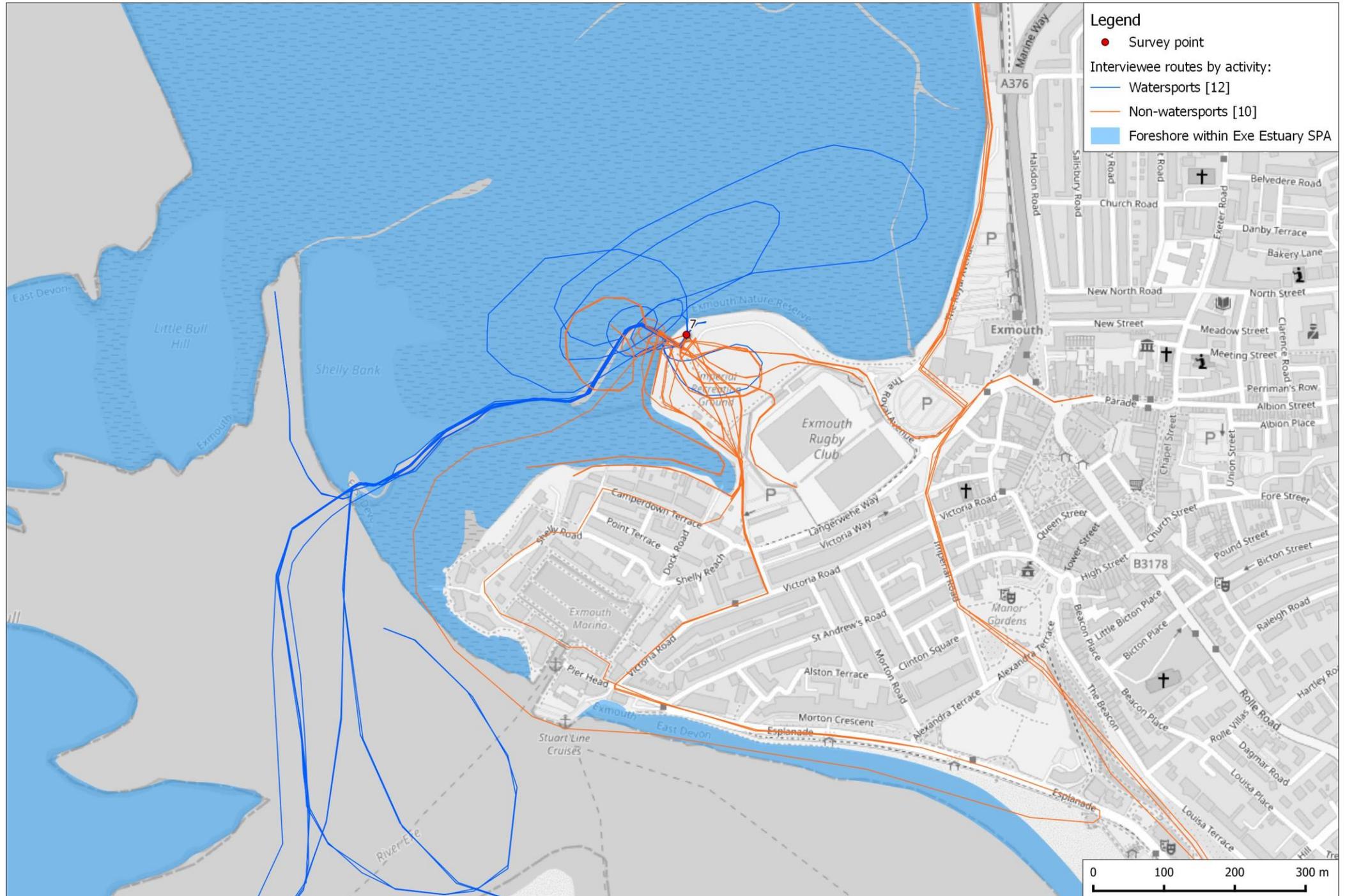
These three additional maps show the routes of visitors who were interviewed at either Dawlish Warren, Exmouth Duck Pond or Lypstone and whose route passed through the intertidal part of the Exe Estuary SPA. There is no map for Goat Walk since only one route went onto the intertidal area and only for a few metres.

Map A1: Interviewee routes that went onto the foreshore around Dawlish Warren



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Map A2: Interviewee routes that went onto the foreshore around Exmouth Duck Pond



Map A3: Interviewee routes that went onto the foreshore around Lymestone



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