Report

footprint ECOLOGY

Exe Estuary Visitor Survey

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Summary

This report presents the results of an on-site visitor survey of the Exe Estuary. The survey has been devised to enhance our understanding of the links between recreational access on the Exe Estuary and local development. The Exe Estuary is internationally important for wintering birds, for which disturbance from recreational activity can be an issue. This survey provides background information necessary for Habitats Regulations Assessments of strategic development and individual developments surrounding the estuary and also links to a study of the impact of disturbance currently being undertaken on the estuary.

Visitor fieldwork involving interviews and counts of people took place at eight sites, with 16 hours of standardised recording taking place at each site. Additional 'boost' surveys focused on particular times of day and weather conditions so as to interview certain users such as kite surfers. In total 586 interviews were undertaken. Interviews asked questions relating to choice of site, route taken, home postcode and some simple visitor profile information.

Most of the visitors (86% of interviewees) were on short visits/day trips, typically visiting for a relatively short period (for example about one third of groups were visiting for less than an hour) and most interviewees were regular visitors (about one third of interviewees visited 'most days'). Dog walking was the most frequently recorded activity (38% of groups), with Exmouth Sea Front, the Duck Pond and Dawlish Warren particularly popular with dog walkers. Walking was the second most commonly cited activity, with 33% of interviews involving people walking without dogs. There was a wide range of other activities recorded, both shore based and water based.

Most visitors (around 60%) had travelled by car and at least a further 29% travelled on foot. Foot visitors tended to be very local, whereas car-borne visitors were travelling considerable distances: 51% of those interviewed (taking only those visiting from home on a short visit/day trip) had come from within a 10km radius of the interview location and 75% with 20km. The main reason attracting people to the site (where interviewed) was the attractive scenery, however for dog walkers proximity to home was the most important factor.

Interviewees were asked where they had been during their visit and routes mapped. The length of the routes varied between users, for example the typical (median) route for dog walkers was 1.6km, for cyclists was 1.9km, for birdwatchers was 1.7km, for walkers was 2.1km. Activities such as kite surfing, windsurfing and boating took place largely (or entirely) well below MHWM. A large proportion of dog walkers (56%) also walked on the intertidal area (i.e. with at least part of their route taking them more than 10m below the MHWM).

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Footprint Ecology has been undertaking work on access and disturbance to birds on the Exe since September 2009 – the Exe Disturbance Study. My thanks to Jenny Lockett (Exe Estuary Officer) and all the other members of the steering group for their support for this wider work.

1. Introduction

Overview

1.1 This report presents the results of an on-site visitor survey of the Exe Estuary. The survey has been devised to enhance our understanding of the links between recreational access on the Exe Estuary and local development. The Exe Estuary is internationally important for wintering birds, for which disturbance from recreational activity can be an issue. The visitor survey will provide the necessary background for Habitats Regulations Assessments of Local Development Plan Framework documents and links to a study of the impact of disturbance currently being undertaken on the estuary.

The Exe Estuary, relevant designations and importance for nature conservation

1.2 The Exe Estuary extends 10 km south from Exeter to the open sea at Dawlish Warren. It forms a partially enclosed tidal area of water, foreshore, low-lying land, saltmarsh and an unusual double spit across the mouth of the estuary. There is an area of sand dunes at Dawlish Warren. Dawlish Warren and Pole Sands (a sand bank) form natural breakwaters between the approach channel and open water of Lyme Bay to the south west.

1.3 The Exe Estuary, including Dawlish Warren, is internationally important for its wintering waterfowl assemblage and for wintering avocet and slavonian grebe, reflected in the Special Protection Area (SPA) and Ramsar designations for the site. It is therefore the winter period that is the focus for this piece of work. Numbers of passage and wintering waterfowl using the estuary will build from July onwards.

1.4 Dawlish Warren is also separately designated as a Special Area for Conservation (SAC), reflecting the important sand dune habitats and flora present at the site.

Links to other work

1.5 During the winter 2009/10 Footprint Ecology have been undertaking detailed ornithological fieldwork and collecting data on visitor numbers and access patterns in order to understand more about the impacts of recreational disturbance to the wintering waterfowl. Footprint Ecology have also been commissioned by Teignbridge District Council to assess the impacts of recreation on the SAC site at Dawlish Warren.

1.6 There are therefore three inter-linked pieces of work:

- The Exe Estuary Disturbance work, specifically looking at the issues relating to disturbance to the wintering waterfowl
- The work to assess the impacts of recreation to Dawlish Warren SAC
- This visitor survey

1.7 The links between the three pieces of work are clear; the ornithological work will provide an understanding of disturbance, for example showing identifying whether disturbance is an issue, for which species, which locations and in which circumstances.

The work at Dawlish will assess the extent to which current levels of access are impacting the integrity of the European Protected Site.

1.8 The visitor work set out in this report provides further detail on the recreational activities, and in particular allows links to be made between housing and access. The three pieces of work will therefore dovetail to provide some of the evidence to inform strategic planning in the Districts adjacent to the Exe Estuary.

Aims and Objectives of this work

1.9 This report therefore aims to:

- Understand who visits the Exe, what activities they undertake and how frequently
- Understand where people go and how they behave while visiting the estuary
- Make the links between where people live and their access patterns
- Understand what options may be available to reduce any potential impacts of recreation.

2. Methods

2.1 On-site visitor fieldwork was conducted at eight main sites (see Table 1 and Map 1), each sampled for 8 sessions. Each session was two hours, and they were spread over the day (covering the periods 07:30-09:30; 10:00-12:00; 12:30-14:30; 15:00-17:00). The eight sessions were equally split between weekends and weekdays, therefore ensuring equal coverage at all locations, with each of the four session periods being covered on a weekday and a weekend day. All survey work was undertaken by the same surveyor.

2.2 During each two hour period the surveyor collected two sets of data, count data and interview data. The count data involved a tally of visitor numbers and the interview data involved face-to-face questionnaires with a sample of people at each access point. The surveyor positioned herself at each location so as to be best placed to both count and interview people. At some locations this meant she roamed slightly in order to catch people using different paths / routes. Notes are given in Table 1 of the approach used at each location.

2.3 In order to boost the sample size for a few particular activities, additional sessions were carried out at a selection of locations. These additional sessions were targeted around slipways and key locations for particular watersports, with the timing of each visit carefully selected to ensure people undertaking watersports could be interviewed (see (see Table 1 and Map 1, for further descriptions). Details of dates, times and sampling visits to each location are given in Appendix 1. A copy of the questionnaire is provided in Appendix 2.

2.4 The count data involved a tally, recording the numbers of people (and the number of groups) passing the surveyor. Counts were maintained separately for each direction people were passing (i.e. entering and leaving if at an access point). Numbers of dogs were also counted.

2.5 As many people leaving as possible were interviewed. The sample of people interviewed was randomised through the surveyor approaching all people leaving (as long as they are not already interviewing others). Only one person (selected at random) from each group / party was interviewed. The following survey protocol was followed:

- The surveyor was typically based at their car at an access point.
- The surveyor carried photo ID and was wearing a high visibility jacket.
- A sign was posted in the car to indicate that a visitor survey was taking place (relevant access points only)
- No unaccompanied minors were approached or interviewed.
- As far as possible, days with inclement weather were avoided.

2.6 The questionnaire was reasonably brief and asked questions relating to:

- Transport used to reach the site

- Activities undertaken
- Other parts of the area visited
- Visitor profile: age, gender etc.
- Home postcode and whether a local resident or visiting tourist
- Identify opinions relating to management issues and potential changes
- Route travelled on site

2.7 Information on people's routes was collected using maps in the field, with the interviewer probing the interviewee about their route and showing the interviewee the map. Routes were drawn as lines on the map, individually cross-referenced to each questionnaire. These data were subsequently entered into a GIS as polylines. Within the GIS (MapInfo 9.5) these were then summarised to give a total length of route. The amount of the route within the intertidal was also calculated, this was derived by determining the length of each route within the following zones: a) within 10m of MHWM (either above or below MHWM); b) below 10m of the MHWM.

2.8 The home postcode data were used to determine the distance between interviewee's homes and the location interviewed. Postcodes from the interview data were geocoded using a standard Royal Mail postcode database (Postzon™ 100 data) within a GIS (MapInfo 9.5). The linear distance between the postcode and the survey location was then extracted for all postcodes.

Table 1: Survey locations and details of approach used at each location. Map refs correspond to Map 1.

Map Ref	Location	Notes / description	Survey Type
2	Exmouth Sea front	Interviewing people on beach only, not people walking above sea wall / on pavement	Standard, 16 hours
5	Duck Pond	By slipway, interviewing people using slipway, using park and walking on mudflats. Need to roam.	Standard, 16 hours
6	Lympstone	Roaming, interviewing people around mouth of channel / slipway, need to catch walkers heading south	Standard, 16 hours
7	Topsham	Start of goat walk, by slipway and benches.	Standard, 16 hours
8	Turf	Adjacent to the Lock, interviewing boat users and walkers and visitors to pub and seawall	Standard, 16 hours
9	Powderham	By road and small parking area, interviewing people using crossing	Standard, 16 hours
10	Dawlish	Near gate, catching people walking along dunes / beach too, therefore roaming a bit	Standard, 16 hours
11	Starcross	Interviewing people using car-park	Standard, 16 hours
1	Exmouth Maer	sunny days with wind at F4 or above, weekends ideally	Targeted, kite surfers and windsurfers
3	Exmouth slipway	sunny weekends, late morning or afternoon	Targeted, jet skiers and other slipway users
4	Exmouth duck pond slipway	sunny days with wind at F3 or above, weekends ideally, tide high. Not too strong winds	Targeted, kite surfers, windsurfers and other craft.

Map 1: Survey locations. **© Crown Copyright and database right 2010. All rights reserved. Ordnance Survey licence number 100026380.**

3. Results

Overview of data

3.1 A total of 715 groups (and 1374 people) were counted 'entering' sites during the standard counts, roughly similar to the 656 groups (and 1175 people) counted leaving. These counts were conducted over a total period of 128 hours, giving an overall visitor rate at the sampled locations of 5.6 people per hour 'entering'.

3.2 Table 2 summarises the counts of people by site. Dawlish Warren was the busiest site, with a total of 141 groups counted 'entering'the site during the 16 hours of observation. Powderham was the quietest site with 40 groups counted 'entering'.

3.3 Mid morning was the busiest time period, with the 10-12:00 session being the busiest, in terms of groups entering, for all sites apart from Topsham, where the highest numbers of people entering was recording during the 15-17:00 session.

3.4 A total of 586 interviews were conducted. One interview was conducted per group, accounting for group size the questionnaires involved a total of over 1138 people[1], accompanied by 307 dogs. Group size (of those interviewed) ranged from 1 to 9 (with a median of 2). Just under half (44%) of interviewed groups were recorded as containing one person and 79% of groups contained 2 or less people.

3.5 There were in 59 refusals. There were also a further 32 people approached that had previously been interviewed and who were not re-interviewed.

3.6 At the standard survey locations survey effort was split equally between weekdays and weekends, with 32 two-hour counts undertaken at each location. For virtually all time periods and all sites there were more people counted entering the site at weekends when compared to the weekend (Table 3) (paired $T = -6.55$, $p<0.001$). Across all sites the ratio of people during the weekdays compared to the weekends was roughly 1:3, with 32% of the people entering the sites counted on weekdays and 68% on weekend days.

[1] note that group size was not recorded for five different interviews

Table 2: Numbers (%) of groups and people both entering and leaving the main sampling points, by time period. Grey shaded cells show the busiest period at each site.

		Dawlish Warren	Duck Pond	Exmouth Sea Front	Lympstone	Powderham	Starcross	Topsham	Turf	Total
07:30-09:30	Groups entering	26 (18)	24 (24)	21 (19)	13 (23)	7 (18)	9 (9)	20 (24)	12 (14)	132 (18)
	Groups leaving	17 (13)	19 (25)	21 (20)	14 (21)	7 (18)	9 (15)	21 (22)	13 (16)	121 (18)
	People entering	35 (11)	29 (19)	38 (18)	15 (16)	12 (17)	12 (6)	28 (17)	20 (13)	189 (14)
	People leaving	18 (6)	24 (19)	29 (15)	15 (14)	10 (15)	11 (10)	27 (18)	17 (12)	151 (13)
10:00-12:00	Groups entering	48 (34)	28 (28)	32 (29)	17 (30)	17 (43)	40 (40)	22 (26)	33 (39)	237 (33)
	Groups leaving	36 (27)	21 (27)	27 (25)	17 (25)	12 (32)	11 (18)	24 (26)	26 (33)	174 (27)
	People entering	113 (34)	47 (30)	66 (31)	30 (32)	31 (45)	80 (40)	52 (32)	50 (32)	469 (34)
	People leaving	81 (29)	36 (29)	44 (23)	30 (27)	21 (32)	13 (12)	37 (25)	36 (26)	298 (25)
12:30-14:30	Groups entering	32 (23)	25 (25)	25 (23)	12 (21)	11 (28)	30 (30)	19 (23)	22 (26)	176 (25)
	Groups leaving	37 (28)	16 (21)	32 (30)	17 (25)	8 (21)	22 (36)	23 (24)	22 (28)	177 (27)
	People entering	104 (32)	44 (28)	62 (29)	23 (25)	17 (25)	63 (32)	37 (23)	53 (34)	403 (29)
	People leaving	94 (33)	34 (27)	68 (36)	32 (29)	17 (26)	48 (43)	42 (28)	54 (38)	389 (33)
15:00-17:00	Groups entering	35 (25)	22 (22)	31 (28)	15 (26)	5 (13)	22 (22)	23 (27)	17 (20)	170 (24)
	Groups leaving	42 (32)	21 (27)	26 (25)	20 (29)	11 (29)	19 (31)	26 (28)	19 (24)	184 (28)
	People entering	76 (23)	36 (23)	45 (21)	25 (27)	9 (13)	43 (22)	47 (29)	32 (21)	313 (23)
	People leaving	89 (32)	30 (24)	50 (26)	34 (31)	18 (27)	39 (35)	43 (29)	34 (24)	337 (29)
Total	Groups entering	141	99	109	57	40	101	84	84	**715**
	Groups leaving	132	77	106	68	38	61	94	80	**656**
	People entering	328	156	211	93	69	198	164	155	**1374**
	People leaving	282	124	191	111	66	111	149	141	**1175**

Table 3: Numbers of people entering sites per time period on weekdays (Wd) and weekend days (We).

Row Labels	07:30		10:00		12:30		15:00		Total
	Wd	We	Wd	We	Wd	We	Wd	We	
Dawlish Warren	13	22	46	67	34	70	28	48	328
Duck Pond	14	15	19	28	17	27	13	23	156
Exmouth Sea Front	5	33	14	52	14	48	17	28	211
Lympstone	6	9	15	15	3	20	5	20	93
Powderham	2	10	8	23	1	16	1	8	69
Starcross	10	2	14	66	24	39	18	25	198
Topsham	14	14	24	28	10	27	15	32	164
Turf	5	15	21	29	11	42	10	22	155
Total	**69**	**120**	**161**	**308**	**114**	**289**	**107**	**206**	**1374**

Separating tourists from local residents

3.7 People visiting from home on a short visit or day trip (i.e. local residents) accounted for the majority of people interviewed. Very few people stated that they were visiting as part of a work break or visiting from a friend or relation's house. Approximately 1 in ten (9%) of the groups interviewed were holidaymakers, and local residents day tripping or coming for a short visit encompassed 86% of the interviews (83% of people). By far the majority of dogs (88%) were associated with people who were visiting from their home on a short visit or day trip (Table 4).

Table 4: Number (%) of groups interviewed, total people and total dogs categorised according to holiday makers, local residents etc. (question 1).

	Number of groups	Total People	Total Dogs
Away from home on holiday in the area	55 (9)	141 (12)	25 (8)
Visiting from home on short visit or day trip	506 (86)	942 (83)	271 (88)
Visiting as part of a work break	1 (0)	2 (0)	(0)
Visiting from a friend/relation's house	21 (4)	51 (4)	10 (3)
Blank	3 (1)	2 (0)	1 (0)
Total	586 (100)	1138 (100)	307 (100)

Activities undertaken during visit

3.8 Dog walking was the activity that was categorised as the main activity for the most interviews; it was the main activity for 225 interviewees (38%). Taking all people rather than interviewees, 373 people (35%) were visiting to walk their dog. Exmouth Seafront, Exmouth Duck Pond and Dawlish Warren were the locations with the most dog walkers interviewed (Figure 1). The next most popular activity was walking; this was the main activity for 191 interviewees (33%) and 412 people (36%). There were significant differences between sites in the proportion of people dog walking, walking and all other activities (taking standard survey locations only, $\chi 2 = 217.8$, 14 df, $p<0.001$).

3.9 A wide range of other activities were recorded (categorised by the surveyor), including specific activities such as windsurfing (1 windsurfer was interviewed), kite surfing (23 interviews), boating (18 interviews) and fishing (1 interview).

3.10 Boating included speed boats (3 interviews), wake boarding (1 interview), sailing (1 interview), "engine powered" (1 interview) and rowing (1 interview). There were also a range of "other" activities that were perhaps not expected for example a number of the bird watchers were joining an RSPB bird boat (12 interviews, 33 people), some groups were having lunch (7 interviews), photography (5 interviews), looking for old bottles (1 interview), playing with remote controlled car (1 interview), music(1 interview),

attending an arts and crafts meeting (1 interview) and flying a remote controlled plane (1 interview).

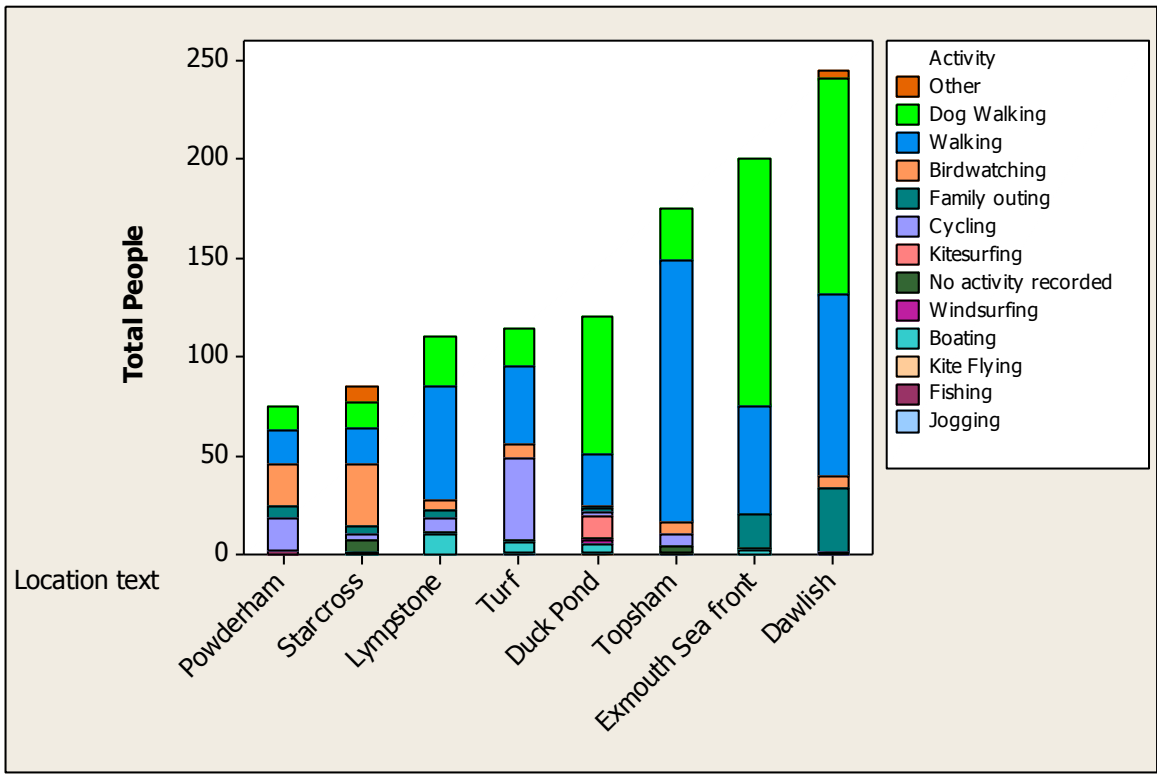


Figure 1: Total people at each site (standard survey locations only), according to activity. Total people is the sum of the group size for each of the interviewed groups.

Time spent at the interview location

3.11 Approximately one third (31%) of the interviewed groups were visiting for less than one hour, and a little under half (43%) of all groups interviewed were visiting for between one and two hours. Only a quarter (25%) of groups was visiting for two hours or more.

Perhaps not surprisingly, the amount of time spent on the site varied according to the activity activity undertaken (

3.12 Table 5). Few dog walks appear to last more than two hours, but roughly as many groups spent an hour on site (44% of groups dog-walking) compared to those spending 1-2 hours on site (48%). Birdwatchers, windsurfers, kitesurfers, those boating and those fishing all tended to spend longer on site, for example 45% of the groups that were birdwatching were visiting for more than three hours.

Table 5: Numbers (%) of groups and the amount of time spent on site. Figures in bold highlight the time period with the highest number of groups for each activity.

Main Activity	Length of time spent on the site interviewed					Total
	less than 1 hour	1-2 hours	2-3 hours	More than 3 hours	No response recorded for the question	
Dog Walking	99 (44)	**109 (48)**	9 (4)	8 (4)	(0)	225
Walking	54 (28)	**79 (41)**	31 (16)	26 (14)	1 (1)	191
Cycling	12 (23)	**25 (48)**	8 (15)	7 (13)	(0)	52
Birdwatching	4 (11)	12 (32)	5 (13)	**17 (45)**	(0)	38
Kitesurfing	(0)	6 (26)	**12 (52)**	5 (22)	(0)	23
Boating	(0)	4 (22)	4 (22)	**10 (56)**	(0)	18
Family outing	4 (25)	**9 (56)**	2 (13)	1 (6)	(0)	16
Other	5 (83)	1 (17)	(0)	(0)	(0)	6
Jogging	**1 (50)**	**1 (50)**	(0)	(0)	(0)	2
Windsurfing	(0)	(0)	(0)	**1 (100)**	(0)	1
Fishing	(0)	(0)	(0)	**1 (100)**	(0)	1
Kite Flying	(0)	(0)	(0)	**1 (100)**	(0)	1
No main activity given	**5 (42)**	4 (33)	(0)	1 (8)	2 (17)	12
Total	184 (31)	**250 (43)**	71 (12)	78 (13)	3 (1)	586

Frequency of Visit

3.13 Across all groups interviewed over one third (34%) visited most days, i.e. at least 180 visits per annum (Table 6). Dog walkers accounted for a particularly large proportion of the groups that visited most days; around one fifth (19%) of all the groups interviewed (113 groups) were dog walkers who visited most days. Walkers tended to visit on a more weekly basis, with 26% of walkers visiting most days and another 24% tending to visit 1-3 times per week.

Table 6: Numbers (%) of groups and frequency of visit. Figures in bold highlight the frequency category with the highest number of groups for each activity.

Main Activity	Frequency of Visit							Total
	Most days	1-3 times per week	2-3 times per month	Once a month	Less than once per month	Don't know / first time	No frequency given	
Dog Walking	**113 (50)**	49 (22)	15 (7)	18 (8)	16 (7)	12 (5)	2 (1)	225
Walking	**49 (26)**	46 (24)	17 (9)	24 (13)	31 (16)	23 (12)	1 (1)	191
Cycling	**16 (31)**	12 (23)	6 (12)	9 (17)	5 (10)	4 (8)	(0)	52
Birdwatching	3 (8)	3 (8)	3 (8)	**11 (29)**	8 (21)	8 (21)	2 (5)	38
Kitesurfing	4 (17)	**8 (35)**	5 (22)	3 (13)	1 (4)	2 (9)	(0)	23
Boating	7 (39)	**5 (28)**	2 (11)	2 (11)	2 (11)	(0)	(0)	18
Family outing	(0)	4 (25)	(0)	3 (19)	**6 (38)**	2 (13)	1 (6)	16
Other	(0)	3 (50)	1 (17)	(0)	2 (33)	(0)	(0)	6
Jogging	**1 (50)**	**1 (50)**	(0)	(0)	(0)	(0)	(0)	2
Windsurfing	(0)	**1 (100)**	(0)	(0)	(0)	(0)	(0)	1
Fishing	(0)	(0)	(0)	(0)	(0)	**1 (100)**	(0)	1
Kite Flying	**1 (100)**	(0)	(0)	(0)	(0)	(0)	(0)	1
No main activity given	**4 (33)**	1 (8)	1 (8)	3 (25)	1 (8)	(0)	2 (17)	12
Total	198 (34)	133 (23)	50 (9)	73 (12)	72 (12)	52 (9)	8 (1)	586

Time of day

3.15 There was relatively little variation in the time of day that people visited (Table 7). By far the highest percentage of people responded that they didn't visit at a particular time (or didn't know / visiting for the first time). For those that did indicate a time, the highest percentage of visitors (by a very small margin) was the 0900 – 1200 period, when 18% of interviewees stated that they tended to visit. Interestingly some 16% of interviewees visited before 0900 and 9% after 1700. Given the winter daylight hours, these frequencies would suggest that there are relatively even visitor numbers throughout the daylight hours in the winter. Dog walkers were the main visitors in the early morning (60% of the interviewees that indicated they visited most at this time were dog walkers, significantly more than other activities: $\chi^2 = 15.75$, 1 df, $p<0.001$). Similarly with the post 1700 time period, dog walkers accounted for a disproportionate number of the interviewees who stated they tended to visit more during this time period ($\chi^2 = 8.95$, 1 df, $p=0.003$).

Table 7: Time of day and numbers (%) of groups and people. Percentages are calculated based on the number of groups interviewed (586) and number of people in the groups (1138) rather than the number of responses, as interviewees could indicate multiple time periods.

Time of day	Groups	People
before 0900	93 (16)	135 (12)
0900 - 1200	108 (18)	207 (18)
1200 - 1500	74 (13)	174 (15)
1500-1700	89 (15)	189 (17)
After 1700	52 (9)	87 (8)
Don't know / first visit / no particular time	320 (55)	654 (57)
Total number of interviews / people	586	1138

Time of Year

3.16 The majority of interviewees stated that they visited all year round, with 57% of groups (54% of people) stating that they did not tend to visit more at a particular time of year and visited all through the year. Of those that did tend to visit more at a particular time of year 17% of interviewees stated that they tended to visit more in the summer. A roughly similar number (15%) stated that they tended to visit more in the winter. Perhaps not surprisingly, it was a significantly higher proportion of dog walkers (compared to other users) who tended to visit more in the winter (χ^2 = 7.23, 1 df, p=0.007); nearly a fifth of dog walkers (21%) stated that they visited more in the winter, a time of year when access restrictions for dog walkers on the beaches are lifted. A relatively high proportion of dog walkers also stated that they tended to visit all year round, but compared to other users there was no significant difference between the two groups (χ^2 = 3.74, 1 df, p=0.053).

Table 8: Time of year that people tended to visit most, and numbers (%) of groups and people. Percentages are calculated based on the number of groups interviewed (586) and number of people in the groups (1138).

Season	Groups	People
Spring	57 (10)	116 (10)
Summer	98 (17)	193 (17)
Autumn	28 (5)	50 (4)
Winter	90 (15)	189 (17)
Don't know	57 (10)	136 (12)
Same all year	334 (57)	615 (54)
Total number of interviews / people	586	1138

Mode of Transport

3.17 Around two thirds of visitors (a minimum of 60% of groups and 69% of people) had travelled to the site (where interviewed) by car, with around another third (a minimum of 29% of groups, 23% of people) arriving on foot. A small number of people had arrived by bicycle (around 4% of groups, 3% of people) and very small numbers (around 1% of groups and people) had arrived by bus and a similar number by train. The mode of transport was not recorded for 4% of groups (3% of people).

3.18 Starcross was the only interview location (of the eight main survey sites) where all visitors that were interviewed arrived by car (Figure 2). Lympstone was the site with the highest number of foot visitors, and the Exmouth sites (the Duck Pond and the Sea Front) also had relatively high numbers of foot visitors compared to other sites. The Turf was the location with the most cyclists.

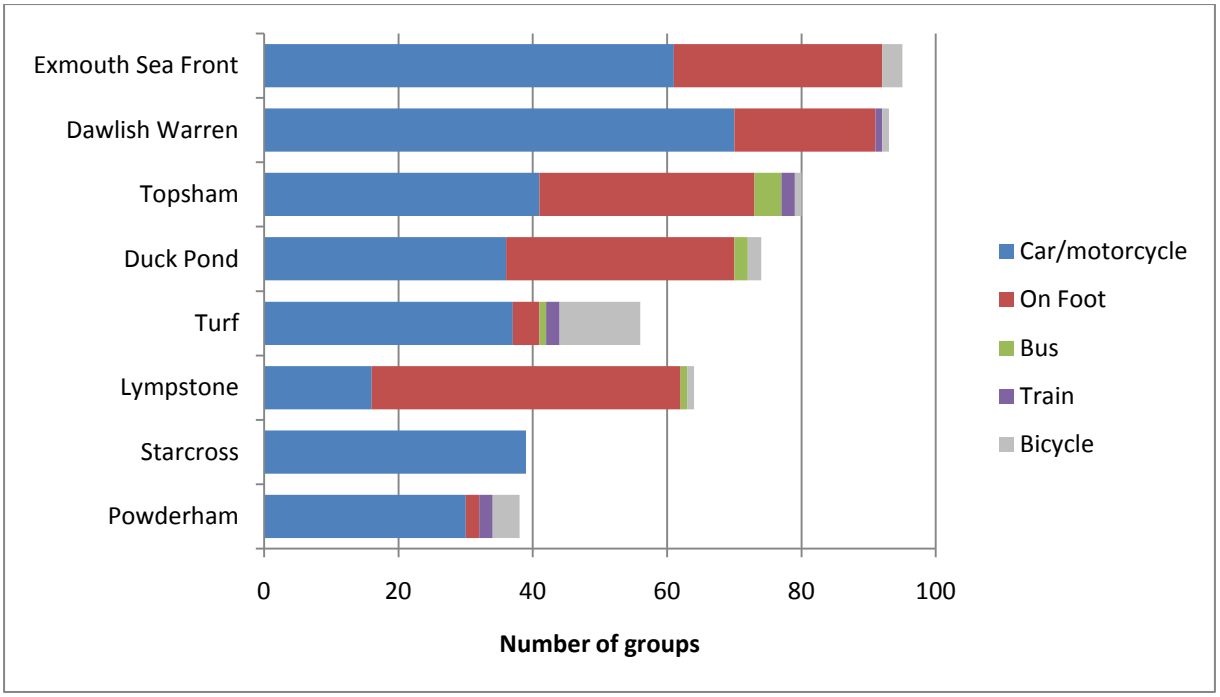


Figure 2: Numbers of groups interviewed at each site and mode of transport.

3.19 A relatively high proportion of dog walkers tended to travel to sites on foot, with 41% of dog walkers arriving at the interview location on foot (Figure 3). For those visiting sites to go walking, roughly a third (35%) walked to the interview location rather than come by car (59% of walkers). Cyclists, perhaps not surprisingly, were the group with the highest proportion of groups arriving by bicycle; 38% of those groups that were cycling had travelled to the site by bike, while 29% had travelled to the site by car and brought their bike with them on/inside the vehicle. Very few cyclists (4% of groups) had brought their bike on the train.

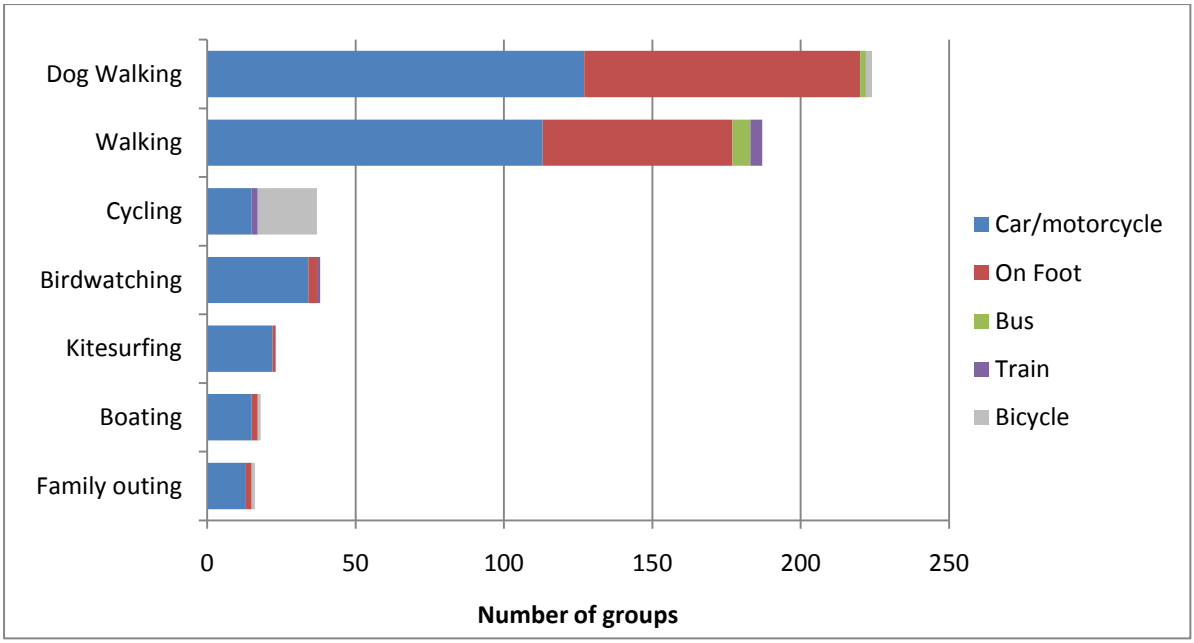


Figure 3: Numbers of groups interviewed by activity, split by mode of transport. Only activities with a reasonable sample size are shown.

Factors influencing choice of site

3.20 Question nine of the questionnaire addressed the factors influencing interviewee's specific choice of site to visit. Factors were coded by the surveyor, and 559 interviewees gave answers that were coded. For many of these interviewees there were multiple reasons behind their choice: for 190 interviewees there was a second reason coded, for 48 of these there was also a third reason and for nine of these a fourth reason. This therefore resulted in 806 coded reasons for site selection, from the total of 502 interviews.

3.21 This total of 806 is summarised in Table 9, which also provides a breakdown by activity. The most common reason given by interviewees related to the attractiveness of the scenery, with 195 (24%) of the responses given being coded as relating to attractive scenery. The second most common reason related to proximity to home, indicating that a large proportion (particularly dog walkers) visit the Exe due to it's proximity to where they live.

Table 9: Factors influencing why people chose the specific location where interviewed. Categories (rows) coded by the surveyor during the interview. Numbers in bold highlight the most frequently cited reason within each column.

	Activity													
	Dog Walking	Walking	Jogging	Family outing	Cycling	Birdwatching	Windsurfing	Kitesurfing	Boating	Fishing	Kite Flying	Other	No activity recorded	Total
Attractive scenery / views	61	**84**	**2**	**7**	**29**	2	0	2	3	**1**	0	1	3	**195**
Close to home	**67**	54	1	2	8	4	0	6	6	0	0	**2**	**6**	156
Short travel time from home	41	29	0	0	8	2	0	4	2	0	0	**2**	0	88
Right place for activity	9	16	0	2	26	4	1	**20**	**7**	0	**1**	0	2	88
Particular wildlife interest	5	21	0	1	1	**29**	0	0	0	0	0	0	1	58
Good for dog	55	0	0	0	0	0	0	0	0	0	0	0	0	55
Substrate type	31	11	0	0	0	0	0	0	0	0	0	0	0	42
Ability to let dog off lead	34	0	0	0	0	0	0	0	0	0	0	0	0	34
Don't know / others in party chose	10	13	0	4	1	0	0	0	1	0	0	0	0	29
Refreshments / cafe / pub	8	12	0	1	1	0	0	0	0	0	0	0	0	22
Good / easy parking	5	4	0	1	0	0	0	0	2	0	0	1	2	15
Feel safe here / safety issues	1	1	0	0	4	0	0	3	0	0	0	0	0	9
Choice of routes / different circuits	0	5	0	0	1	0	0	0	0	0	0	0	0	6
Suitability given weather conditions	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Toilets	1	1	0	0	1	0	0	0	0	0	0	0	0	3
Particular launching facilities	0	1	0	0	0	0	0	0	1	0	0	0	0	2
Total	328	256	3	18	80	41	1	35	22	1	1	6	14	806

Effectiveness of mitigation measures

3.24 Visitors were asked to consider a number of hypothetical changes to the estuary and asked whether they would then spend more or less time visiting the estuary (question 12). The responses are summarised in Table 10. For most changes the largest proportion of people interviewed stated that they would not change the amount of time they spent, or felt that they didn't know. The one factor that did seem to potentially make a difference was how busy the site was, with well over half (67%) of people interviewed stating that they would spend less time on the Exe if it was busier.

Table 10: Responses to different changes to the Exe and number (%) of visitors that would spend more or less time on the site.

	Groups				People			
Changes	**Spend more time**	**Spend less time**	**Neither / don't know or blank**	**Total**	**Spend more time**	**Spend less time**	**Neither / don't know or blank**	**Total**
Site is busier with more people	4 (1)	338 (67)	244 (49)	586	12 (1)	658 (68)	468 (48)	1138
Better path surfaces or routes	249 (50)	20 (4)	317 (63)	586	483 (50)	35 (4)	620 (64)	1138
Parking charges introduced or increased	7 (1)	192 (38)	387 (77)	586	17 (2)	430 (44)	691 (71)	1138
Dogs required to be on leads	132 (26)	182 (36)	272 (54)	586	251 (26)	322 (33)	565 (58)	1138
Presence of warden / beach manage	114 (23)	21 (4)	451 (90)	586	251 (26)	33 (3)	854 (88)	1138
Part of shore closed in areas sensitive for wildlife	124 (25)	71 (14)	391 (78)	586	257 (26)	129 (13)	752 (77)	1138

3.25 Interviewees were also asked what features would be necessary to make another site attractive for them to use (for their given activity) instead of the location where interviewed. Around one third of all people (34% of groups) indicated that there was nothing that would attract them to other sites Table 11). There were significant differences between activities (grouped as "dog walkers", "walkers" and "all others") in the proportion of people interviewed for which there was nothing that could be done to draw them to another site (χ^2 = 9.4, 2 df, p=0.009). Dog walkers were the group for which the highest proportion of interviewees felt something could be done to draw them elsewhere.

3.26 The most commonly cited change was making sites more dog friendly, with 15% of all interviewees indicating this as an important feature. Not surprisingly most of these were dog walkers, with 38% of dog walkers interviewed suggesting that making other sites more dog friendly would potentially make other sites more attractive for them to

visit. Comments relating to 'dog-friendliness' help to define what aspects are seen as making sites more friendly for dogs. Comments included more space, enclosed space (i.e. safe areas to let dogs off leads, with roads etc. fenced), dog bins, presence of a dog warden, less wildlife, less mud, ability to let dogs off leads, longer walkers and no restrictions.

3.27 Better path surfacing was also a feature cited by relatively high proportion of interviewees. Across all groups interviewed, 12% of groups indicated this as an important feature.

Table 11: Responses to question 13, the numbers (%) of people and features of another site that would make another site more attractive for them to visit.

Features	Total		Dog Walkers		Walkers		Others	
	Groups	People	Groups	People	Groups	People	Groups	People
Nothing / no changes possible	201 (34)	380 (33)	67 (30)	112 (28)	82 (43)	162 (39)	52 (31)	106 (32)
More dog friendly	87 (15)	154 (14)	85 (38)	149 (38)	1 (1)	3 (1)	1 (1)	2 (1)
Better launching / access to water	15 (3)	29 (3)	1 (0)	3 (1)	1 (1)	2 (0)	13 (8)	24 (7)
Better path surfacing	73 (12)	139 (12)	14 (6)	28 (7)	27 (14)	51 (12)	32 (19)	60 (18)
Refreshments	40 (7)	99 (9)	9 (4)	22 (6)	18 (9)	44 (11)	13 (8)	33 (10)
Better information	5 (1)	8 (1)	0 (0)	0 (0)	3 (2)	3 (1)	2 (1)	5 (2)
Measures to control other users	29 (5)	47 (4)	15 (7)	20 (5)	5 (3)	10 (2)	9 (5)	17 (5)
Toilets	32 (5)	71 (6)	8 (4)	16 (4)	12 (6)	31 (8)	12 (7)	24 (7)
Better / easier parking	23 (4)	51 (4)	3 (1)	7 (2)	6 (3)	14 (3)	14 (8)	30 (9)
Cheaper / free parking	19 (3)	57 (5)	5 (2)	18 (5)	7 (4)	19 (5)	7 (4)	20 (6)
Closer to home	26 (4)	48 (4)	12 (5)	19 (5)	8 (4)	16 (4)	6 (4)	13 (4)
Attractive scenery	49 (8)	97 (9)	20 (9)	36 (9)	18 (9)	41 (10)	11 (6)	20 (6)

Distance Travelled

3.28 Initial geocoding of the postcodes from the questionnaires successfully located 523 home postcodes, leaving 63 questionnaires (11%) where the postcode did not match the database or no postcode was given. For 12 of these 63 the respondent gave a home town location, rather than a postcode, and for these 12 questionnaires a single point was manually plotted within the GIS at the centre of the town. This left 51 questionnaires where the home postcode of the respondent could not be located. Of these 51, 39 were visiting from home on a short visit or day trip, nine were away from home on holiday in the area and three were visiting from a friend or relation's house.

3.29 Travel distances according to mode of transport are summarised in Figure 4. The majority of car drivers are coming from within 31km (the top of the green boxes represents the third quartile, i.e. 75% of the data has a value equal or below this level, for car drivers this third quartile is at 31km). People travelling by foot and by bicycle are typically coming from much closer distances. For those arriving by car, foot, bus or train there are also a number of records of people with home postcodes that are hundreds of kilometres from the survey location. These are holiday makers.

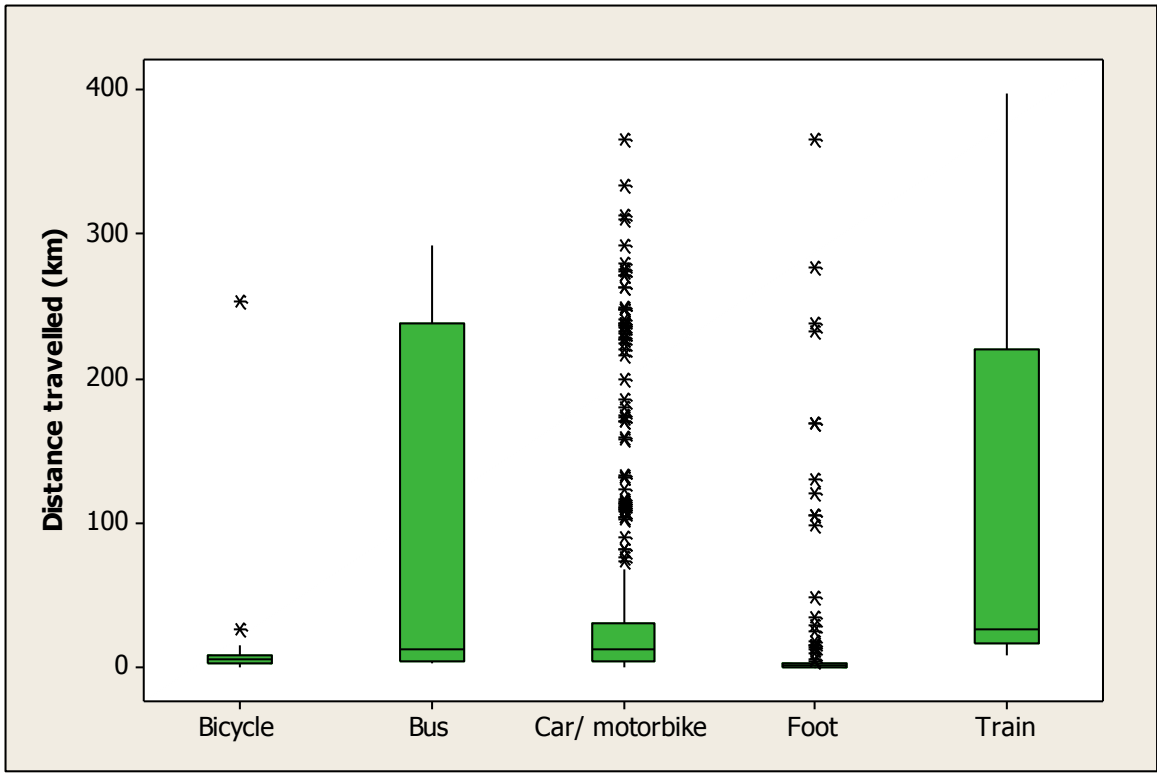


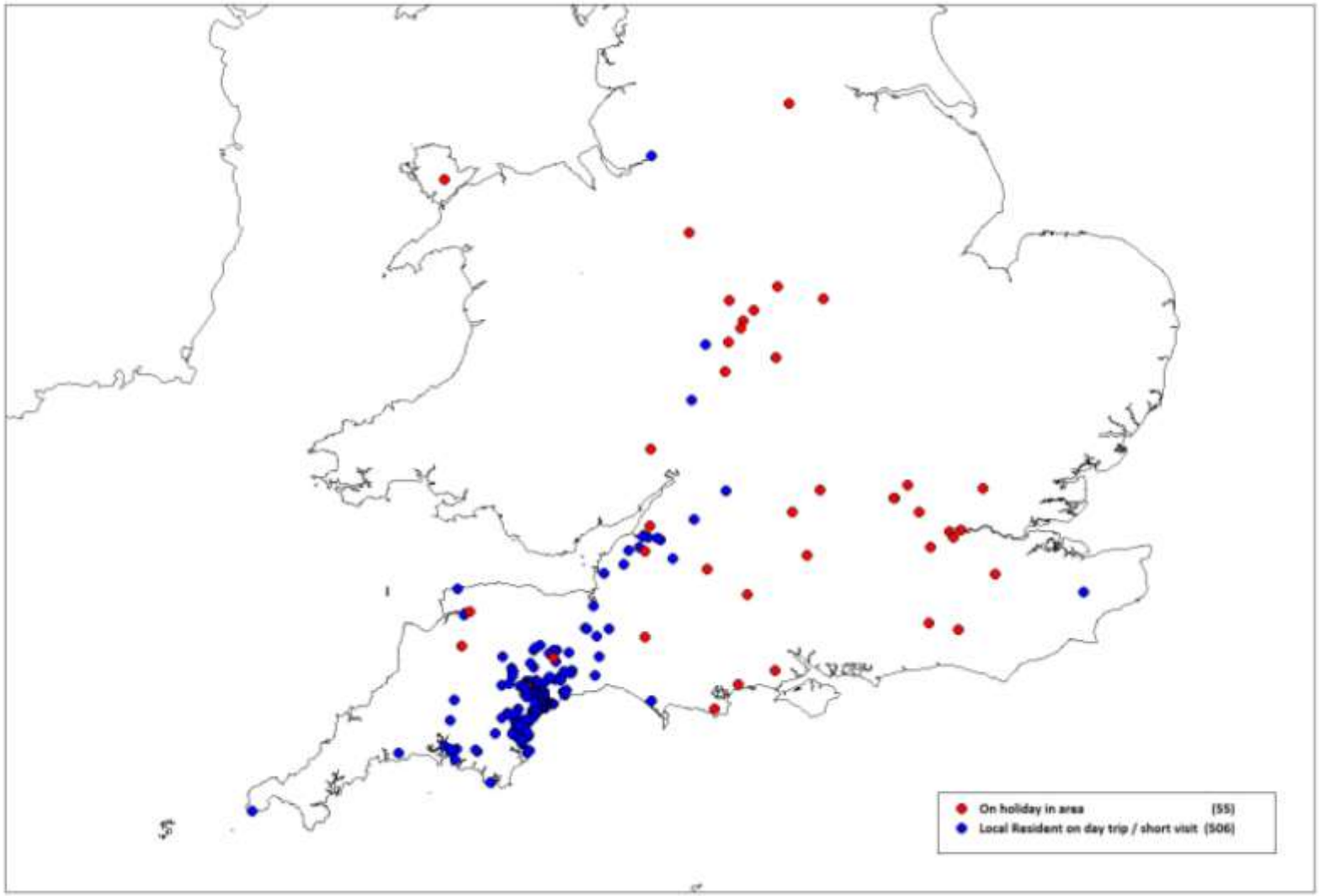
Figure 4: Boxplot summarising travel distances (in km) for all interviews where the home location for the interviewee was identified, either by postcode (n=523) or where the town was given and manually entered in the GIS (n=12).

3.30 There were 55 holiday makers – i.e. those staying away from home on holiday – for which valid postcodes were collected. These people's home postcodes included Anglesey, the Midlands and across the south-east (Map 2). These tourists lived considerable distances away from the Exe (median distance = 169km, range 0.1 – 279.6km).

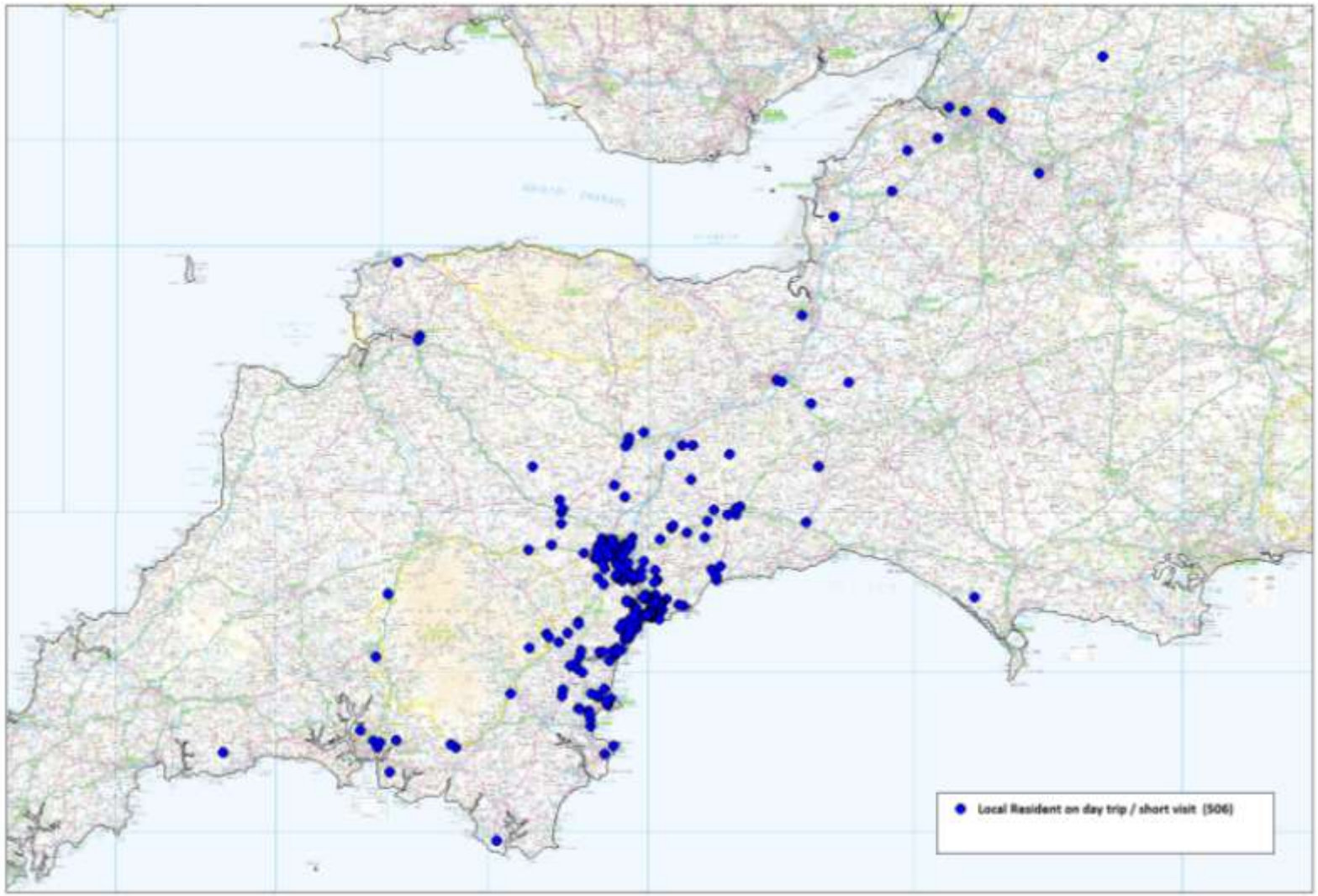
3.31 The data for those visiting on a short day trip / short visit directly from their home are shown in Maps 3 and 4 are summarised in Table 12. Map 5 also shows the same data, but with visitor's home postcodes coloured to reflect activity undertaken during the visit.

Table 12: Travel distances for those people who were visiting directly from their home, on a short visit or day trip, split by mode of transport. Distances were calculated as the linear distance from the home postcode (or centre of home town) to the survey location.

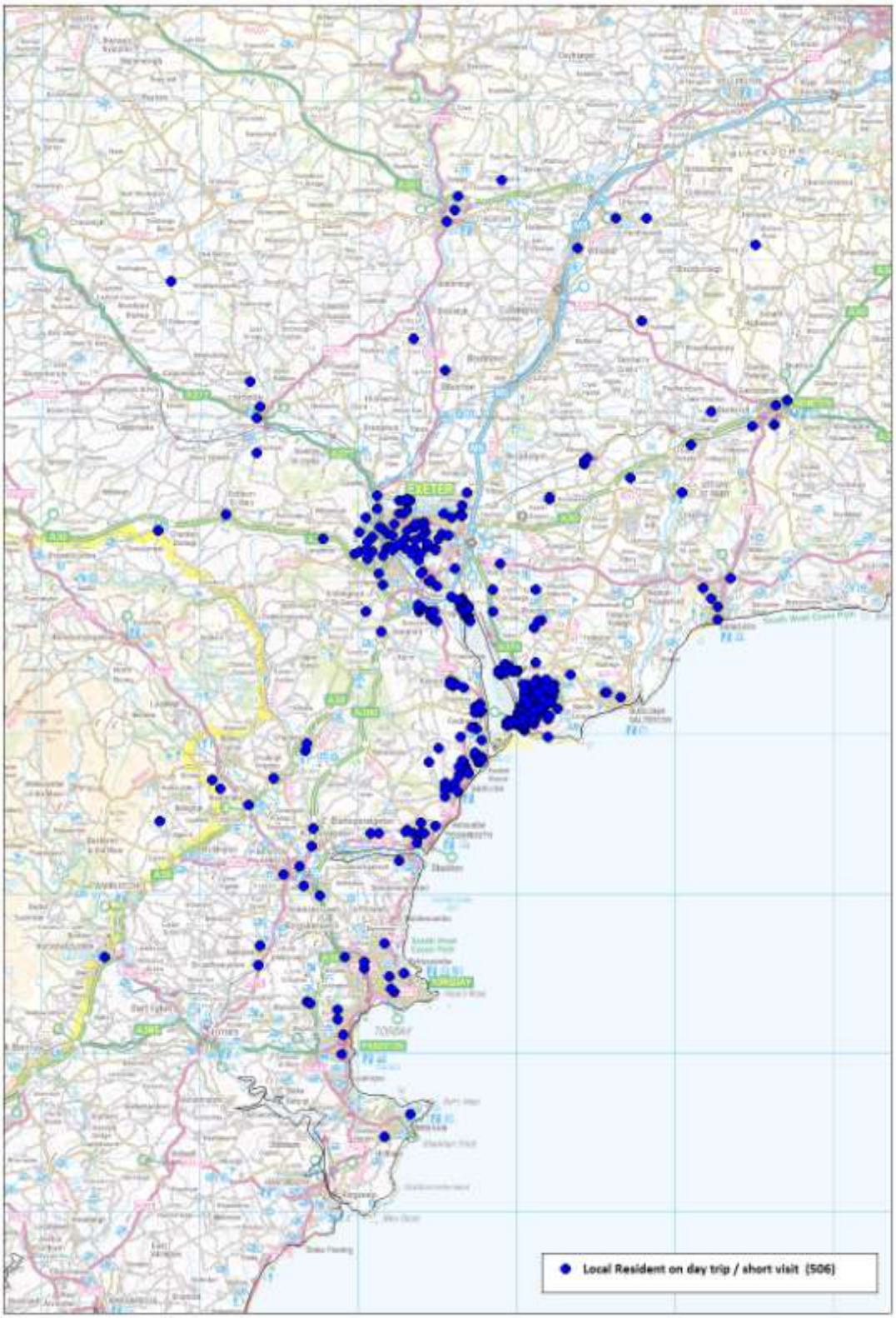
Mode of Transport	Count	Range (km)	Median (km)
Car	299	0.16-366.7	9.8
Foot	154	0.06-169.34	0.72
Bus	5	2.42-16.7	16.70
Train	6	7.5-219.9	24.2
Bicycle	22	0.47-25.74	5.88



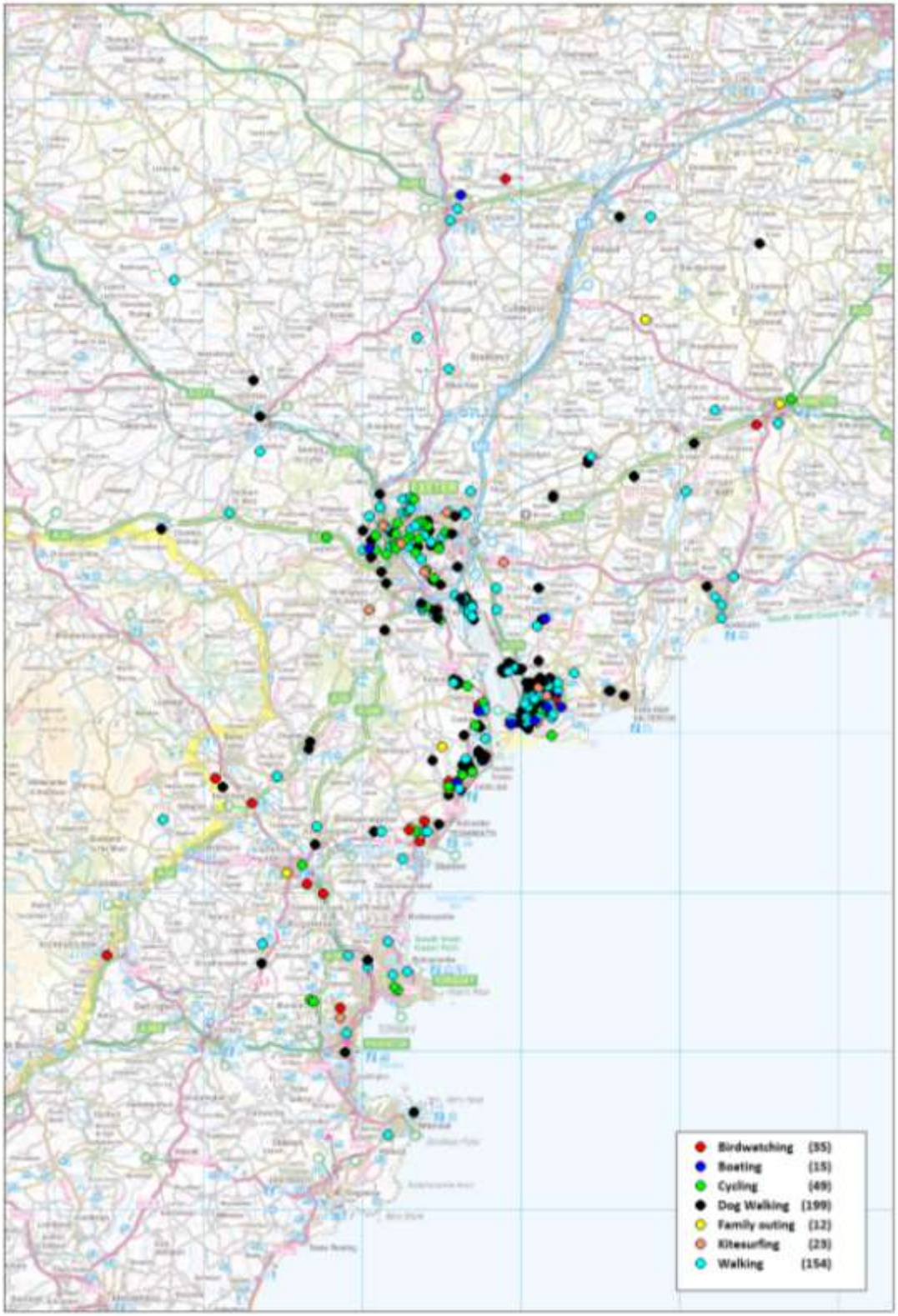
Map 2: Home postcodes of interviewees.



Map 3: Home postcodes of visitors visiting from home on short visit / day trip. Only limited geographic area shown. **© Crown Copyright and database right 2010. All rights reserved. Ordnance Survey licence number 100026380.**



Map 4: Home postcodes of visitors visiting from home on short visit / day trip. Only limited geographic area shown, (around the Exe). **© Crown Copyright and database right 2010. All rights reserved. Ordnance Survey licence number 100026380.**



Map 5: Home postcodes of visitors visiting from home on short visit / day trip. Only limited geographic area shown, (around the Exe), and points are coloured to reflect different activities. **© Crown Copyright and database right 2010. All rights reserved. Ordnance Survey licence number 100026380.**

3.32 Taking just the people travelling from home, for a day trip or short visit, **Error! Reference source not found.** shows the distance between the survey location and home postcode as cumulative percentages, by mode of transport. This plot essentially highlights the distances at which people are travelling to visit the site. The percentages are also summarised in Table 13; it can be seen that 67% of people travelling on foot live at postcodes that are within 1km of the estuary. By contrast for people arriving by car just over half (51%) live within 10km (linear distance) from the estuary.

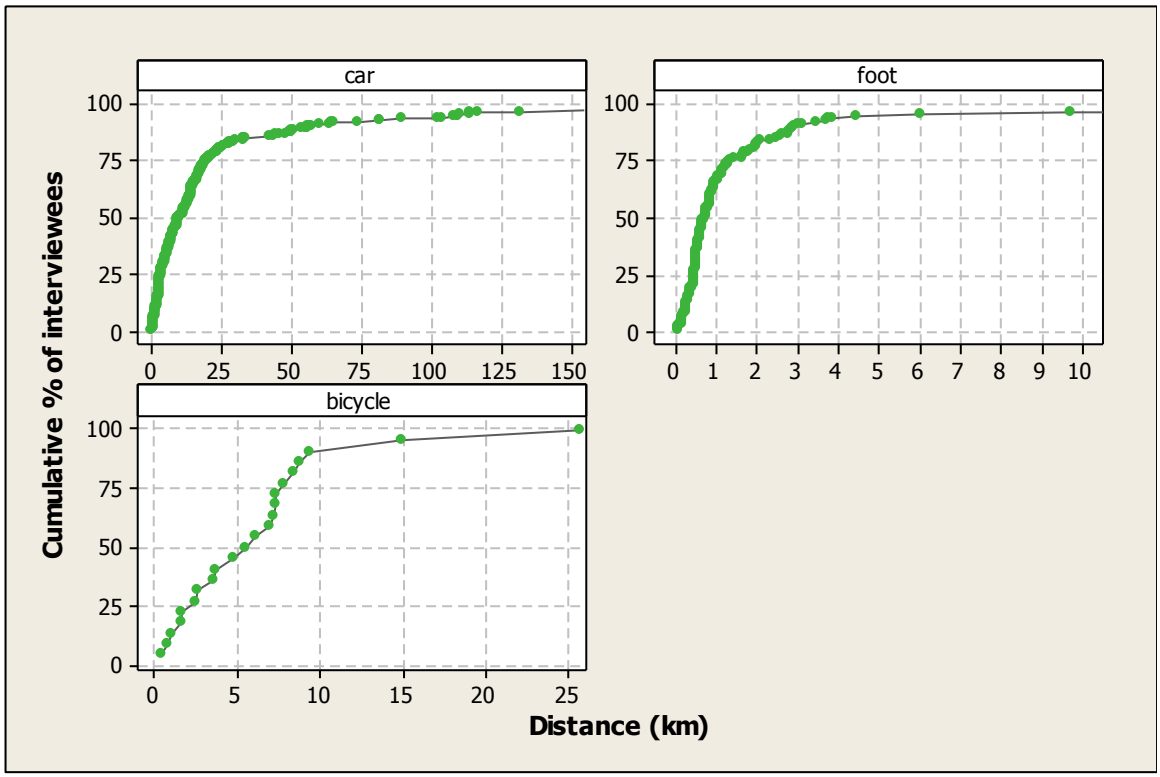


Figure 5: Frequency distribution showing the cumulative percentage of interviewees with postcodes at given distances from the survey location. Data are for people visiting from home on a short trip or day trip only, and the data are split by mode of transport. Reference lines are given at 5, 10 and 20km.

Table 13: Percentage of interviewees and distance of home postcode from survey location. Data for people visiting from home on a short trip or day trip only, as in Figure 5.

	Distance			
	1km	**5km**	**10km**	**20km**
Bicycle	13%	46%	92%	98%
Car	6%	35%	51%	75%
Foot	67%	95%	96%	99%

3.33 In Figure 6 the data relating to distance travelled are shown, split by activity, again just for those people visiting on a short trip or day trip from their homes. It can be seen that those undertaking boating, cycling, dog walking or jogging are all relatively local, whereas those visiting to birdwatch, kite surf, on an outing with family or to walk tend to live at greater distances from the survey location. The differences between these activities (i.e. the activities in Figure 6) and the distances travelled are significant (Kruskal-Wallis H=84.70; 7 df, p<0.001). These data are also shown in Map 5.

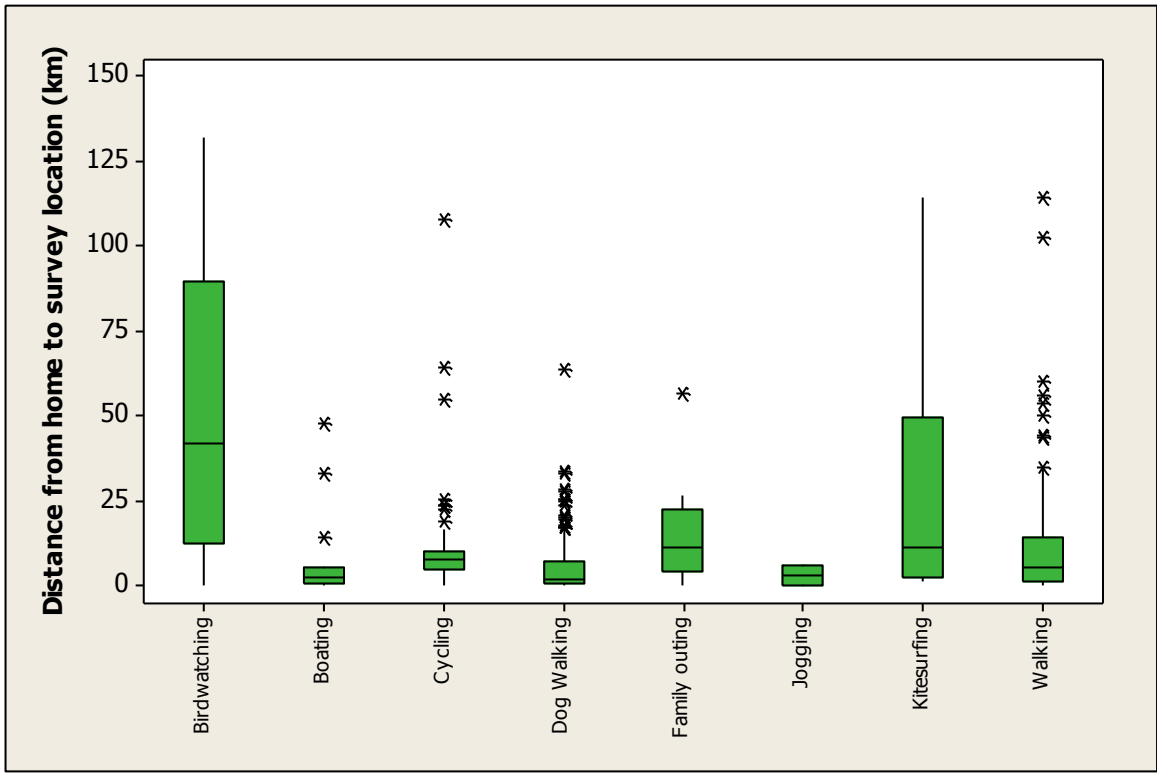


Figure 6: Distance from home postcode to survey location, for people visiting on a short visit or day trip only, split by main activity undertaken during visit. Selected activities (with reasonable sample sizes) are shown. Y axis is truncated at 125km.

Routes

3.34 Visitors' routes were mapped as polylines within the GIS and the total length of each route calculated. These data are summarised in Figure 7, Table 15 and Table 15. All route data are shown in Map 6 and an example of the route data for a single location is shown in Map 7 (showing just routes for people interviewed at Dawlish Warren).

3.35 Boating was a broad category that encompassed a range of different activities and perhaps not surprisingly route lengths for those undertaking boating ranged widely, from 41m to 29km. Taking just the main land-based activities (birdwatching, cycling, dog walking, family outings and walking) there were significant differences between the different activities in the length of their routes (Kruskal-Wallis H = 22.94, 4 df, p < 0.001), with family outings involving the shortest routes (median 1376m) and cyclists travelling the furthest (median = 1901m).

3.36 A total of 586 different routes were mapped. Of these, 147 routes did not go within 10m of the MHWM, for example people walking within the dunes at Dawlish Warren.

Across all sites and all activities, 439 routes were at least in part within 10m of MHWM or below MHWM. As might be expected activities such as windsurfing, kite surfing and boating in virtually all instances involved people on the intertidal (Table 14), but perhaps surprisingly over half of all the dog walkers interviewed (56%) had walked on the intertidal.

3.37 Map 7 shows visitor density (plotted as number of groups within 25m cells) within Dawlish Warren SSSI. Visitor densities are highest in the dunes rather than on the beach, with visitor density seemingly concentrated (at least during the winter period) in the area between the car-park and the visitor centre and a little way further east of the visitor centre.

Table 14: Number (%) of routes that encompass the beach and intertidal habitats by activity. The total number of routes is all the routes that were mapped. The number on beach is the number that went (at least in part) within 10m of MHWM. The number on intertidal is the number that went (at least in part) at least 10m below MHWM.

Row Labels	Total number of routes	Number on beach	Number on intertidal
Birdwatching	38	21 (55)	15 (39)
Boating	18	15 (83)	14 (78)
Cycling	52	22 (42)	4 (8)
Dog Walking	225	177 (79)	125 (56)
Family outing	16	11 (69)	5 (31)
Fishing	1	1 (100)	1 (100)
Jogging	2	1 (50)	1 (50)
Kite Flying	1	(0)	(0)
Kitesurfing	23	23 (100)	23 (100)
Walking	191	157 (82)	61 (32)
Windsurfing	1	1 (100)	1 (100)

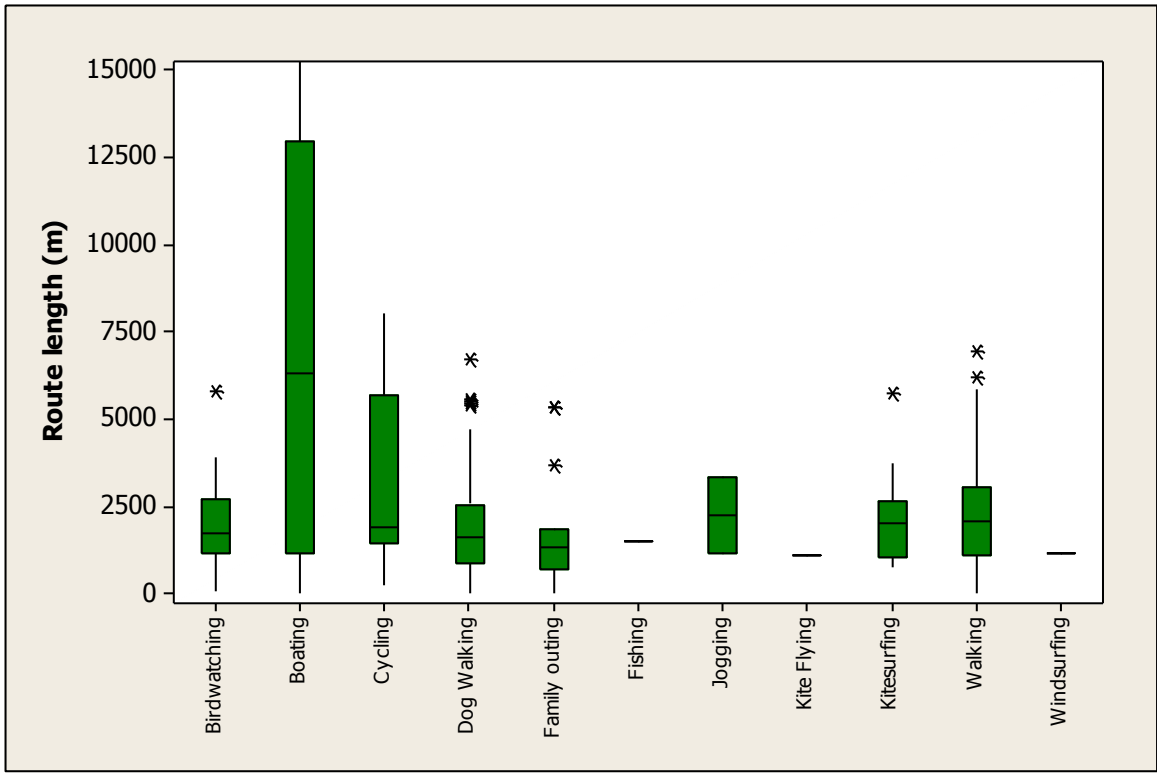
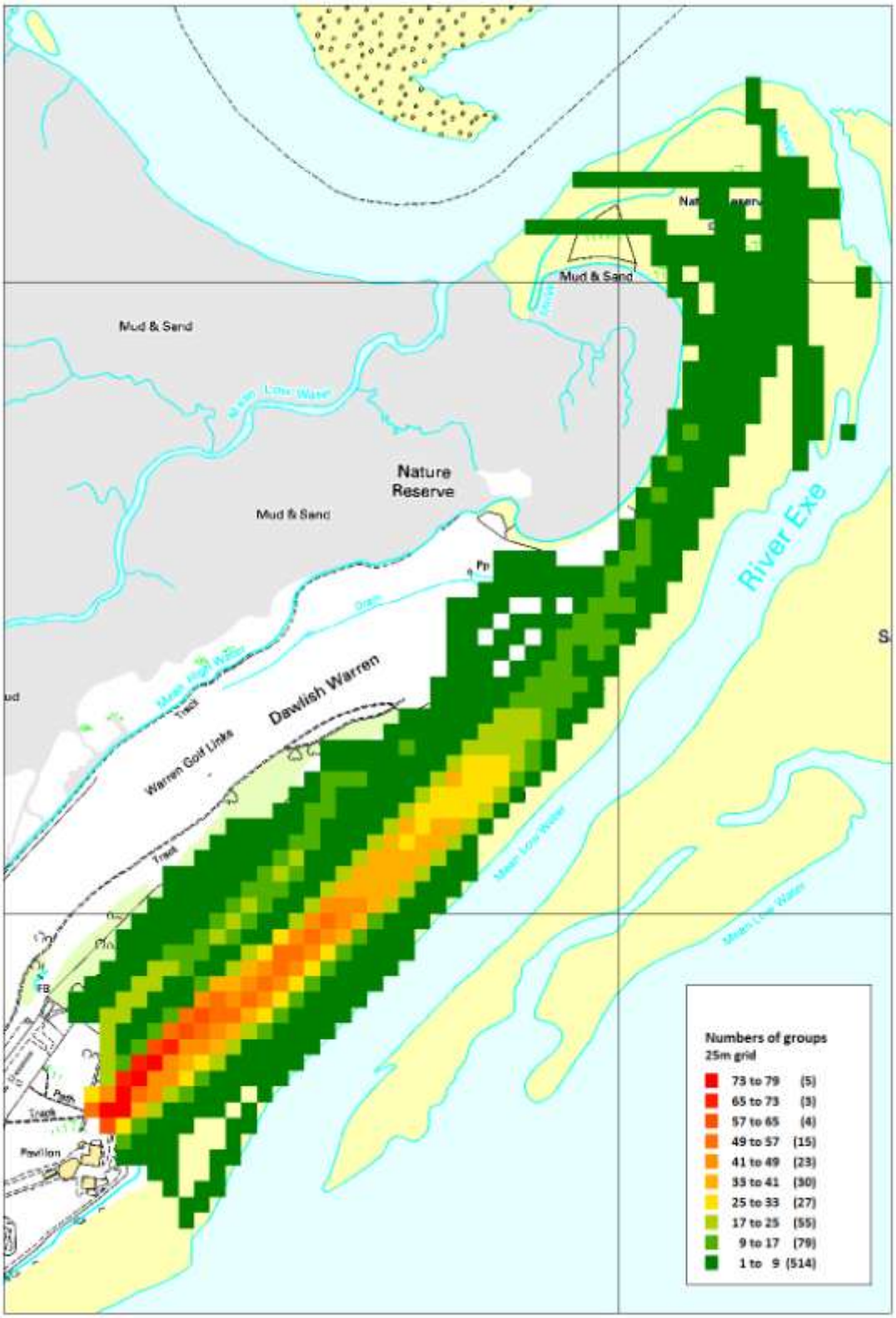


Figure 7: Boxplots showing route data, per activity. Note that the y axis is truncated at 15km.

Table 15: Summary statistics relating to routes for each activity type.

Activity	Number of Routes	Route length (m)			
		Mean (SE)	Min	Max	Median
Birdwatching	38	1954 (202)	81	5791	1741
Boating	18	8562 (2074)	41	29833	6350
Cycling	52	3513 (351)	256	8021	1901
Dog Walking	225	1842 (82)	31	6723	1644
Family Outing	16	1825 (404)	42	5379	1376
Fishing	1	1541	1542	1542	1541
Jogging	2	2267 (1076)	1191	3343	2267
Kite Flying	1	1106	1106	1106	1106
Kite Surfing	23	2171 (247)	797	5732	2056
Walking	191	2255 (106)	11	6933	2087
Windsurfing	1	1196	1196	1196	1196

Map 6: All route data. **© Crown Copyright and database right 2010. All rights reserved. Ordnance Survey licence number 100026380.**



Map 7: Visitor density within Dawlish Warren SSSI. Drawn using a 25m grid over the SSSI, and grid cells coloured according to the number of routes intersecting each cell. **© Crown Copyright and database right 2010. All rights reserved. Ordnance Survey licence number 100026380.**

4. Discussion

4.1 The data presented in this report provides a fascinating overview of winter recreational use on the Exe Estuary. Given the relatively small, discrete size of the estuary it has been possible to achieve a good level of coverage for the entire SPA, with all the main visitor locations around the estuary included in the survey.

4.2 The visitor information is of interest in its own right, but will be particularly powerful when combined with the results from the disturbance study (to be produced in the late autumn 2010). The disturbance work will identify which activities, which locations and under what circumstances different activities are causing disturbance to wintering waterfowl on the estuary. This work will then put these activities into context, highlighting where people live, how they choose where to go, what features are important to them and where they tend to go during their visit. This information will provide a detailed and extensive evidence base to underpin Habitat Regulations assessments relating to development and strategic planning in the areas around the Exe.

4.3 The approach of standard time periods coupled with focused sampling at key locations and times to boost the sample for particular activities seemed to work well, especially for activities such as kite surfing, where 23 were interviewed.

4.4 The results of the visitor work indicate how complex and varied the recreational use of the Exe Estuary is. There are a wide range of activities that take place, both on the shore and the water. Even in the winter there is a mix of local residents and tourists visiting the area. For each of these activities the distance people travel, where they go on the site and how people behave varies. The maps showing postcodes are particularly interesting and relevant to strategic planning. The maps show a relatively local distribution for some activities such as dog walking. For both kite surfing and cycling there is clearly strong links with Exeter and city residents utilising the Exe for their favoured sports. For activities such as bird watching and walking, the postcodes of visitors were widely scattered and included rural locations such as north Devon and the edge of Dartmoor, highlighting the more regional draw of the site for some activities.

4.5 The postcode maps also reflect the importance of the transport network, with a pattern of home postcodes along the motorways, spreading up towards Bristol and down towards Plymouth.

4.6 The route data shows where people have been during their visit. The map of the whole estuary and all the routes shows a complex ‘spider’s web’ of routes and indicates how people spread out from the different interview sites. These routes may be particularly inaccurate for water-based activities taking place on the sea, due to the lack of features and landmarks. Activities such as kite surfing, where users tack and zig-zag over an area, will be particularly difficult to map in this fashion. However, with this caveat the data do provide a good indication of where people go and particularly for the shore based activities the lines show which types of activity take place on the intertidal (where the most potential to disturb birds will occur). The routes for Dawlish Warren

have the potential to inform more detailed work on the SAC relating to trampling and visitor pressure.

4.7 Compared to walkers, significantly fewer dog walkers indicated that there was nothing that could be done to other sites to make them more attractive (and therefore potentially divert visitors). This would potentially indicate that dog walkers, compared to other activities (at least walking) may be easier to attract to alternative sites. Making sites more dog friendly was a particular feature dog walkers wanted to see.

Appendices

Appendix 1: Dates and times of visits

Location	Site Number	Date	Day of Week	07:30	10:00	12:30	15:00
Dawlish Warren	10	17/02/2010	Wednesday			1	1
		19/02/2010	Friday	1	1		
		20/02/2010	Saturday	1	1	1	1
Duck Pond	5	28/02/2010	Sunday	1	1	1	1
		04/03/2010	Thur	1	1	1	1
Duck Pond II	4	14/03/2010	Sunday			1	1
Exmouth Dock Slipway	3	27/02/2010	Saturday			1	
		27/03/2010	Saturday				1
Exmouth Dock Slipway	3	10/04/2010	Saturday			1	1
Exmouth Maer	1	28/03/2010	Sunday			1	1
Exmouth Sea Front	2	15/02/2010	Monday	1			
		21/02/2010	Sunday	1	1	1	1
		24/02/2010	Wednesday		1	1	1
Lympstone	6	03/03/2010	Wednesday			1	1
		05/03/2010	Friday		1		

Location	Site Number	Date	Day of Week	07:30	10:00	12:30	15:00
			Friday	1			
		07/03/2010	Sunday	1	1	1	1
Powderham	9	25/02/2010	Thursday	1	1	1	1
		27/02/2010	Saturday			1	1
		06/03/2010	Saturday	1	1		
Starcross	11	18/02/2010	Thursday			1	1
		26/02/2010	Friday	1	1		
		27/02/2010	Saturday	1	1		
		06/03/2010	Saturday			1	1
Topsham	7	11/03/2010	Thursday	1	1	1	1
		27/03/2010	Saturday	1	1		
		03/04/2010	Saturday			1	1
Turf	8	09/03/2010	Tuesday	1	1		
		10/03/2010	Wednesday			1	1
		13/03/2010	Saturday	1	1	1	1
Total				16	16	20	20

Appendix 2. Questionnaire and Tally Form

Exe Visitor Survey

Good am / pm. Please could you spare me a few minutes to take part in a short survey about your visit today. The survey is being conducted for the Exe Estuary Partnership.

Q1 Which of the following best describes your situation today? *Read list. Tick closest, single answer only*

	1 Away from home on holiday in the area
	2 Visiting from home on a short visit or day trip
	3 Visiting as part of work break
	4 Visiting from a friend's / relation's house
	5 Other: [note details below]:

Q2 What is the main activity you are undertaking today? *No prompt. Multiple answers ok, tick as appropriate to categorise.*

	1 Dog walking
	2 Walking
	3 Jogging/power walking/Nordic walking
	4 Outing with children/family
	5 Cycling
	6 Birdwatching / wildlife watching
	7 Windsurfing
	8 Kite surfing
	9 Boating (give details in free text)
	10 Bait Digging / Cockling / Crab tiling
	11 Canoeing / kayaking
	12 Fishing
	13 Short cut
	14 Kite flying
	15 Other/further detail:

Q3 How long have you spent / will you spend in the area today? *Tick closest, single answer only.*

	1 Less than 1 hour
	2 1 - 2 hours
	3 2 - 3 hours
	4 More than 3 hours

Q4 Over the past year, roughly how often have you visited the Exe? *Tick closest answer. Probe if interviewee struggles. Single answer only.*

	1: >180 visits "*Most days*"
	2: 40—180 visits "*1 to 3 times a week*"
	3: 15-40 visits "2 to 3 times per month"
	4: 6-15 visits "*Once a month*"
	5: 2-5 visits "*Less than once a month*"
	6: Don't know / first time
	Specific detail/no visits:

Q5 Do you tend to visit this area at a certain time of day? *Tick closest, multiple answers ok, do not prompt*

	1 Before 9am
	2 Between 9am and 12
	3 Between 12 and 3pm
	4 Between 3 and 5pm
	5 After 5pm
	6 No / Don't know / first visit

Q6 Do you tend to visit this area more at a particular time of year for [*insert activity*]? *Multiple answers ok*

	1 Spring		4 Winter
	2 Summer		5 Don't know / 1st visit
	3 Autumn		6 Same all year

Q7 How did you get here? *Add if necessary:* **What form of transport did you use?** *Do not prompt. Categorise as appropriate. Single answer only.*

	1 Car / motorcycle		5 Horse
	2 On Foot		6 Bicycle
	3 Bus		7 Over water (e.g. Boat, canoe etc).
	4 Train		

Free Text: other detail.

Q8 Aside from this location, do you visit any other places for [*insert activity*], either on the Exe or further afield? *IF YES:* **which two or three do you use most often?** *Multiple answers ok. Do not prompt. Record locations.*

	1:
	2:
	3:

Additional details / sites :

Q9 What makes you come here, specifically, rather than another local site? *Multiple answers ok. Do not prompt. Tick closest answers as appropriate. Use free text box for reasons that didn't fit with categories/extra detail.*

	1 Don't know / others in party chose		9 Right place for activity (eg kite surf/fishing/ good for kids)
	2 Close to home		10 Particular wildlife interest
	3 Short travel time from home		11 Refreshments / Cafe / Pub
	4 Good /easy parking		12 Substrate type (e.g. Sandy beach)
	5 Feel safe here/safety issues		13 Good for dog/dog enjoys it
	6 Toilets		14 Suitability given weather conditions
	7 Choice of routes/ability to do different circuits		15 Ability to let dog off lead
	8 Attractive scenery/views		16 Particular launching facilities

Free Text: other reasons / detail. Draw out site specific features and note details here.

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 parked (if travelling by car) and where you started your walk or visit today. And the finish point. And your route please ? *Probe to ensure route accurately documented. Use* **P** *to indicate parking,* **E** *to indicate start point and* **X** *to mark exit and mark route with a line. Use solid line for actual route and dotted line for expected / remaining route. If relevant add tideline.*

Q10 Is/Was your route today a typical length for you when you visit this location for [*insert activity***]?** *Single tick only, do not prompt, code as appropriate.*

	1 Yes, normal			3 Shorter than normal
	2 Longer than normal			4 Not sure/visit erratically /first visit/no typical visit

Q11 What (if anything) influenced your choice of route here today? *Multiple answers ok. Do not prompt. Tick closest answers as appropriate. Use free text box for reasons that didn't fit with categories/extra detail.*

	1 Rainfall			6 Muddy tracks/paths
	2 Daylight			7 Wind
	3 Cold			8 Tide
	4 Other users (i.e. presence of people)			9 Activity undertaken (e.g. presence of dog)
	5 Time available			10 Particular members of group (e.g. kids)

Free Text: other reasons / detail:

Q12 And in terms of this location, if the following changes were made, would you spend more or less time here on the Exe for [*insert activity***]?** *Read out each type of change in turn.*

	more	less	Neither / don't know	Comment
Site is busier with more people				
Better path surfaces or routes				
Parking charges or increased charges				
Dogs required to be on leads				
Presence of warden / beach manager				
Part of shore closed in areas sensitive for wildlife				

Q13 For [*insert activity***] what features would be necessary to make another site attractive for you to use instead of here?** *Do not prompt. Categorise as appropriate.*

	1 No features / nothing			7 Measures to control other users
	2 More dog friendly			8 Toilets
	3 Better launching / access to water			9 Better / easier parking facilities
	4 Better path surfacing / path network			10 Cheaper/free parking
	5 Refreshments (e.g. cafe / pub)			11 Closer to home
	6 Better information / maps / boards			12 Attractive scenery

Free Text: other reasons / detail:

Q14 Do you have any other comments about this area?

Finally, so that we can check whether we have a representative sample, please answer the following questions. This information will not be used for anything else.

Q15 What is your full home postcode?
If unable/refusal to give postcode: **What is the name of the nearest village/town or if in a city the nearest district/suburb?** *Enter as much detail as possible to allow the location to be mapped.*

Q16 How many of your party fall into the following age categories? *Enter number*

	1 Under 18			3 41-65
	2 18-40			4 Older than 65

THAT IS THE END. THANK YOU VERY MUCH FOR YOUR TIME

COMPLETE AFTER INTERVIEW FINISHED:	Interview conducted part way through route (tick if yes)	Surveyor:	NOTES:
Date:	Number of dogs:	Accompanying map? (tick for yes, x for no):	
Time:	Dog(s) seen off leads? Y/N	Gender of respondent (M / F):	
Location:	Group size (total people):		

RECORDING FORM / TALLY SHEET

Date	
Day of week	
Location	

Recorder	
Site Number	

WEATHER

Rainfall (tick one)			Cloud cover (8ths) in middle of period:	
None			Temperature (tick those that apply):	
Yes, less than ¼ of the 2 hour time period			cool	
Yes, ¼ to ½ of the 2 hour period			mild	
Yes, ½ to ¾ of the 2 hour period			warm	
Yes, more than ¾s of the 2 hour period			hot	

Give any further descriptions of weather conditions (especially if likely to influence visitor nos—e.g. thunder storm or high winds.) Also any tide details if relevant to access.

Time Period (tick one)	
0730—0930	
1000—1200	
1230—1430	
1500—1700	

No. refusals during 2 hr period	
No. already interviewed	
Total no. interviews during 2 hrs	
Start no. for questionnaire nos.	

TALLY: record people passing or within predefined count area (use notes box to describe how tally completed if no clear entrance / exit)

Entering the site			Leaving the site		
Total people	Total Groups	Total dogs	Total people	Total Groups	Total dogs

NOTES: record any incidents, unusual activities, unusual types of access and also any reasons for unusual numbers of visitors