



Salisbury Plain Visitor Survey 2015



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Summary

This report presents the results of a visitor survey of Salisbury Plain, commissioned by Wiltshire Council. The visitor survey results will be used to inform the mitigation strategy for Salisbury Plain Special Protection Area (SPA) and the potential impacts of future development in Wiltshire on the SPA.

The survey methods involved:

- Driving transects, following a set route (on tracks) and recording the locations of parked cars and any people seen
- Automated counters (cameras/fixed beams) at various locations
- Face-face interviews & counts of people passing at 18 locations.

Key findings of the survey include:

Driving transects

A total of 17 driving transects were undertaken through August, covering a range of dates, types of day and times of day.

- Per transect (50km) there was a mean of 11 parked cars/vans; 10.1 dog walkers; 2.8 moving cars/vans; and 4.4 four x fours (parked or moving). There was also low numbers of runners, cyclists, scrambler bikes and a range of other activities also recorded.
- Transects undertaken on the bank holiday transects tended to be busier than weekend ones and weekdays were the quietest.

Automated Counters

Data were collected from 11 counters.

- For five counter locations, average daily passes at both weekends and weekdays were less than 10, indicating relatively low levels of access at a high proportion of surveyed locations.
- Busy counter locations (mean daily passes of over 100 per weekday or weekend day) were at Beacon Hill and Perham Down.
- Data from counters tends to show access peaking in the afternoon (1500-1800) with a smaller peak in the mornings (0900-1100).

Interviews

363 interviews were conducted.

- Counting the people accompanying the interviewees captured data relating to the access patterns of 620 people and 462 dogs (mean group size 1.71 people and 0.75 dogs).
- The number of dogs per interviewed party ranged from 0 to 9; 80% of interviewees had at least one dog with them.

- Nearly three-quarters (74%) of interviewees stated dog walking was their main activity (but note this may not reflect access totals as a whole as people cycling and driving 4x4s are less likely to be intercepted/interviewed). Dog walkers were interviewed at all survey points.
- Besides dog walking, other activities included walking, cycling, outing with the family and jogging. No interviews were conducted with anyone off-roading and driving a 4x4 vehicle (due to difficulties of interviewing this groups), but four interviews (1%) were with those on motorbikes/quadbikes.
- The most frequent visit length was between 30 minutes and an hour (51% of interviewees).
- Most interviewees had been visiting Salisbury Plain for an extended period: with around half (48%) indicating they had been visiting for ten or more years. Less than 5% of interviewees were on their first visit and 12% had been visiting for less than a year.
- Some 39% of interviewees visited daily and a further 17% visited most days, meaning over half of interviewees visited the location where interviewed very regularly.
- The highest number of daily visitors interviewed (30 interviewees) was at Westbury White Horse. At Warren Hill, Heytesbury, Tank Crossing B/B1 and West Everleigh Down a relatively high proportion of interviewees (at least two-thirds) were daily visitors.
- Around a third (29%) of interviewees did not tend to visit at any particular time of day; for those who did tend to visit at a particular time of day, the early morning (34% interviewees) and evening (28% of interviewees) was favoured
- Most (87%) of interviewees tended to visit equally all year round, suggesting those interviewed varied their visit patterns relatively little through the year
- The majority (81%) of interviewees had arrived at the survey point by car (Table 15) and survey point 18 (West Everleigh Down) was the only location where no interviewees had arrived by car.
- Virtually all survey points had at least one interviewee who had arrived on foot (survey point 9, Westbury White Horse was the one exception)
- ‘Scenery /variety of views’ (54% of interviewees) and ‘close to home’ (39% interviewees) were clearly particularly important factors underpinning why interviewees chose to visit Salisbury Plain as opposed to other places. Free text responses highlight the open space and sense of space draw people to visit.
- The most important factor in terms of selecting which part of Salisbury Plain to visit was close to home (49% interviewees). Close to home was cited by interviewees more than expected at Tidworth, Battlesbury, Westbury White Horse, Larkhill Driving Range and Milston Road Parking.
- Relatively few interviewees (31%) were aware of any designations or environmental protection that applies to Salisbury Plain. Of those who stated they were aware of any designations, just 1% indicated a European designation and 14% indicated they were aware of SSSI status.
- A total of 340 valid geo-referenced home postcodes were collected during the survey, and were mapped to show where people visiting tended to live. For those people on a short visit directly from home the median distance between the home postcode and survey point was 2.9km and 75% of those visitors had come from a radius of 6.4km.
- At least ten interviewees came from the following settlements: Warminster (53 interviewees), Westbury (30), Durrington/Bulford (24), Tidworth (20), Market Lavington (17) and Devizes (11).
- A total of 363 routes (route taken while visiting the Plain) were mapped. Median route length was 3km.
- There were significant differences in route length between survey points (longest at Redhorn Vedette – median 6.7km and shortest at Westbury White Horse – median 0.9km). Routes also varied between activities, ranging from a median of 0.9km (outing with family) to 22.9km (off-road motorbikes/quadbikes). The median dog walk was 2.6km.

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Fieldwork was organised by Fenella Lewin and undertaken by Michael Alexander, Nick Hopper, Jack Rawlings, Chris Sadler and Doug Whyte. We are grateful to all those who participated in the survey.

1. Introduction

- 1.1 This report presents the results of a visitor survey of Salisbury Plain, commissioned by Wiltshire Council. The visitor survey results will be used to inform the mitigation strategy for Salisbury Plain Special Protection Area (SPA) and the potential impacts of future development in Wiltshire on the SPA.

Context

Salisbury Plain

- 1.2 Salisbury Plain is a sparsely populated chalk plateau that extends for some 780km², lying predominantly within Wiltshire. Around half of the Plain is owned by the MOD and is used for military training (Salisbury Plain Training Area – SPTA). The plain has a rich archaeological heritage which includes Stonehenge and it is also of nature conservation importance. The plain qualifies as a Special Area of Conservation (SAC) for its lowland juniper scrub and semi-natural dry grassland, and it is believed to be the largest semi-natural dry grassland site within the European Union. Among the SAC interest is the presence of the Marsh Fritillary *Euphydryas aurinia* butterfly.
- 1.3 The Plain is classified as an SPA (Map 1), due to the presence of Stone Curlews *Burhinus oedichnemus*, and at classification the SPA held around 14.5% of the British population. Other qualifying species include the Hen Harrier *Circus cyaneus*, which is a winter visitor, and breeding Quail *Coturnix coturnix* and Hobby *Falco subbuteo*.
- 1.4 The SAC covers some 21,438ha, slightly larger than the 19,689ha of the SPA. Salisbury Plain SAC includes additional sites to the south of the Parsonage Down and Porton Down.

Visitor Impacts and Designated Sites

- 1.5 Despite being largely owned and managed by the MOD, there is extensive public access across Salisbury Plain. This area is crossed by numerous tracks and green lanes and there are a number of Public Rights of Way including bridleways (see Map 1). Access is also permitted under MOD bylaws.
- 1.6 While public access to the countryside is important and brings a range of benefits (e.g. Tansley 1945; Snyder 1990; Hammond 1998; English Nature 2002; Miller & Hobbs 2002; Alessa, Bennett & Kliskey 2003; Morris 2003; Bird 2004; Thompson, Price & Galbraith 2005; (Pretty et al. 2005); Saunders 2005; Robinson 2006), access can also have impacts on the nature conservation interest. The issues are summarised in general reviews (e.g. Saunders et al. 2000; Lowen et al. 2008; Liley et al. 2010). A number of studies have provided compelling indications of the links between housing, development, access and nature conservation impacts, particularly on heathlands (Mallord 2005; Underhill-Day 2005; Liley & Clarke 2006; Clarke, Sharp & Liley 2008; Sharp et al. 2008; Clarke & Liley 2013) and coastal sites (Saunders et al. 2000; Randall 2004; Liley & Sutherland 2007; Clarke, Sharp & Liley 2008; Liley 2008; Stillman et al. 2009, 2012).

- 1.7 Stone Curlews are one of the species that are perhaps particularly sensitive to impacts from recreation (Taylor, Green & Perrins 2007) and development (Clarke & Liley 2013; Clarke et al. 2013).
- 1.8 As development levels and the number of local residents increase, areas that are important for nature conservation can fulfil a range of other services, which include providing space for recreation, ranging from the daily dog walk to extreme sports. As such increasing levels of development, even when well outside the boundary, can have negative impacts on protected wildlife sites. A critical issue for UK nature conservation is therefore how to accommodate an increasing demand for new homes and other development without compromising the integrity of protected wildlife sites.
- 1.9 Where the nature conservation interest is designated as a European Protected site there are particular implications. European sites are protected through the provisions of the Conservation of Natural Habitats and Species Regulations 2010 (SI no. 490), as amended, which transpose both the Habitats Directive (Council Directive 92/43/EEC) and the Wild Birds Directive (Council Directive 79/409/EEC) into UK law.
- 1.10 With respect to the impacts of access on relevant sites, Article 6(3) of the Habitats Directive, transposed into Regulation 61 within the Habitats Regulations, ensures that competent authorities can only agree to a plan/project which is likely to have a significant effect (alone or in-combination) after having determined that it will not adversely affect the integrity of any European site (subject to imperative reasons of over-riding public interest and consideration of alternative solutions). Impacts associated with recreational activities that can be linked to plans or projects should therefore be avoided through the correct application of Regulation 61 by competent authorities. Regulation 61 applies to all European sites and therefore covers both SACs and SPAs. New development and strategic development plans must therefore address any impacts of increased recreation to European sites.

Salisbury Plain and the Wiltshire Core Strategy

- 1.11 The Wiltshire Core Strategy was adopted in January 2015 and is a strategic document setting out a framework for planning development across Wiltshire through to 2026, including the provision of some 42,000 new dwellings over the plan period. A check of recent postcode data¹ indicates that there are currently around 210,000 residential properties within Wiltshire and the Core Strategy therefore sets out an increase in the number of houses of somewhere around 20%.
- 1.12 As part of the plan-making process Wiltshire Council undertook Habitat Regulations Assessment work, which at the outset identified potential impacts of increased recreational pressure on Salisbury Plain SPA. The Council therefore established a mitigation strategy which assesses in greater detail the likely increases in visitor numbers as a result of the planned development and sets out mitigation measures. The strategy relies primarily on a visitor survey of the eastern part of the Plain that was

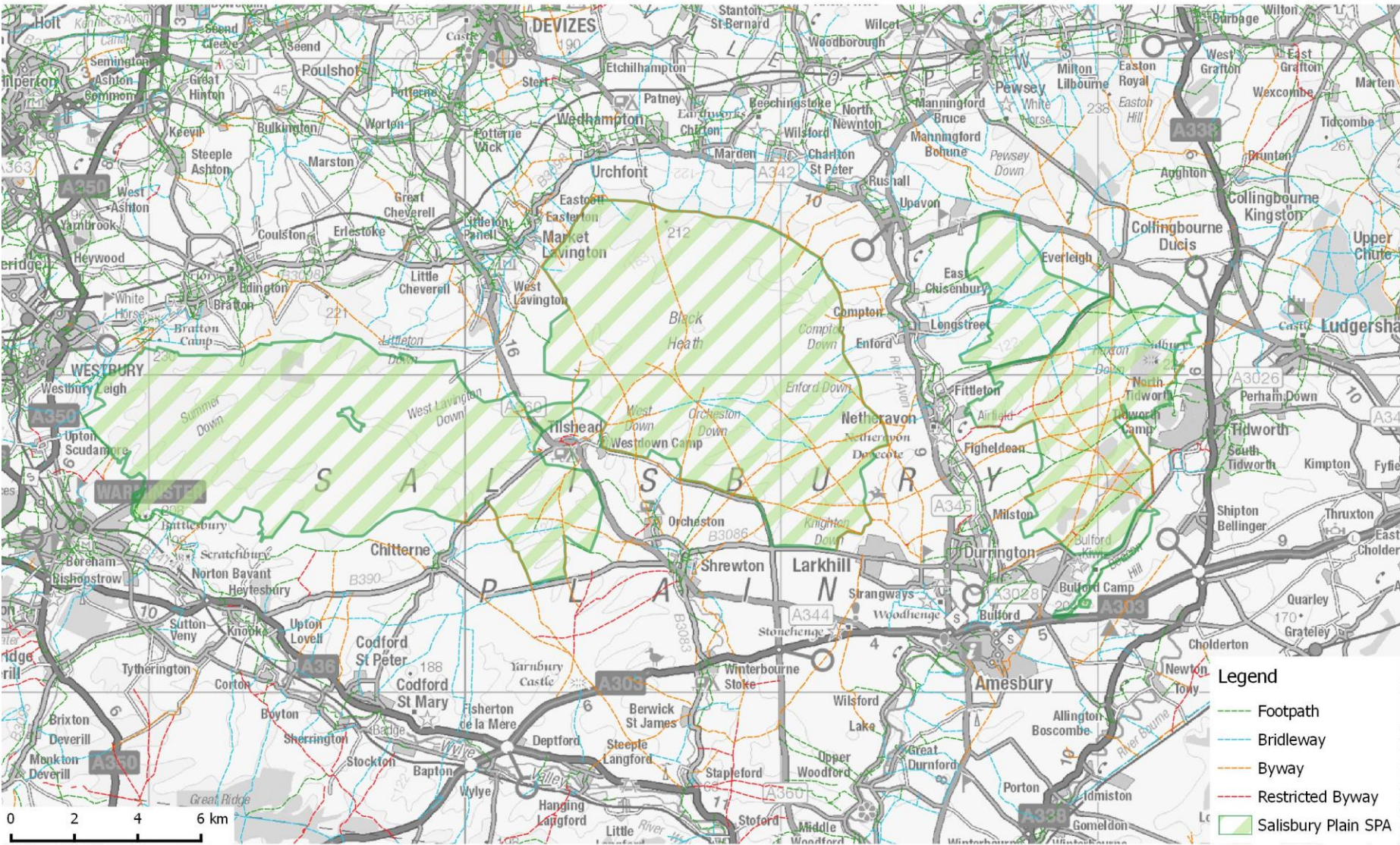
¹ Postcode data (OS Code Point) from 2015 with number of residential properties per postcode.

carried out in 2006 (Liley, Payne & Peat 2007). This previous survey was commissioned primarily to consider the implications of a new tank track.

The need for visitor survey work and aims of this report

- 1.13 The 2006 survey is now dated and an up-to date visitor survey across the whole Plain is clearly necessary to inform the mitigation strategy. The aim of this survey is therefore to broadly repeat the 2006 survey in order to compare visitor pressures and patterns on the eastern plain now and then, and to expand on that scope to look at additional activity hot spots around the central and western plains. This information could be used to identify any correlation between nest/plot productivity and trends in visitor access on the plains, allowing the potential to review the need for adaptive management measures by DIO, in line with their stone curlew management plan. The information will also be used to inform forthcoming strategic Habitat Regulations Assessments of emerging planning policy documents.

Map 1: Salisbury Plain SPA and the public rights of way.



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2. Methods

Introduction

2.1 The survey is intended to provide data on visitor access patterns on Salisbury Plain, focussing on the potential implications of new housing and impacts of recreation on stone curlews. The survey in part repeats the previous survey undertaken in 2006.

2.2 The survey methods involve:

- Driving transects, following a set route (on tracks) and recording locations of parked cars and any people seen
- Automated counters (cameras/fixed beams)
- Face-face interviews & counts of people passing at 18 locations

Driving Transects

2.3 Using a set transect, counts were conducted of all vehicles and people seen while driving the transect route. These counts excluded any military vehicles or military personnel clearly working or on exercise. The details of activities being undertaken and point locations of each vehicle were recorded on a map. Individual observations recorded discrete groups which were conducting the same activity, for example; a group of five off-road vehicles, a couple walking a dog, a cyclist and jogger together, or a group of four parked cars. These groups are hereafter referred to as 'events'.

2.4 A total of 17 circuits of the route, shown in Map 2, were conducted. The transect route is around 50km long and took in the region of two hours to complete (taking slightly longer on the initial route and when particularly busy). The exact same route was undertaken on each circuit of the transect. However, the direction of travel on the transect was alternated on each day of visit.

2.5 Transects took place in August and included weekends and weekdays and a range of times of day. Dates/times (Table 1) included:

- 3 transects on August bank holiday
- 6 transects on weekend days
- 8 transects on week days

Table 1: The dates and start times of individual transect counts.

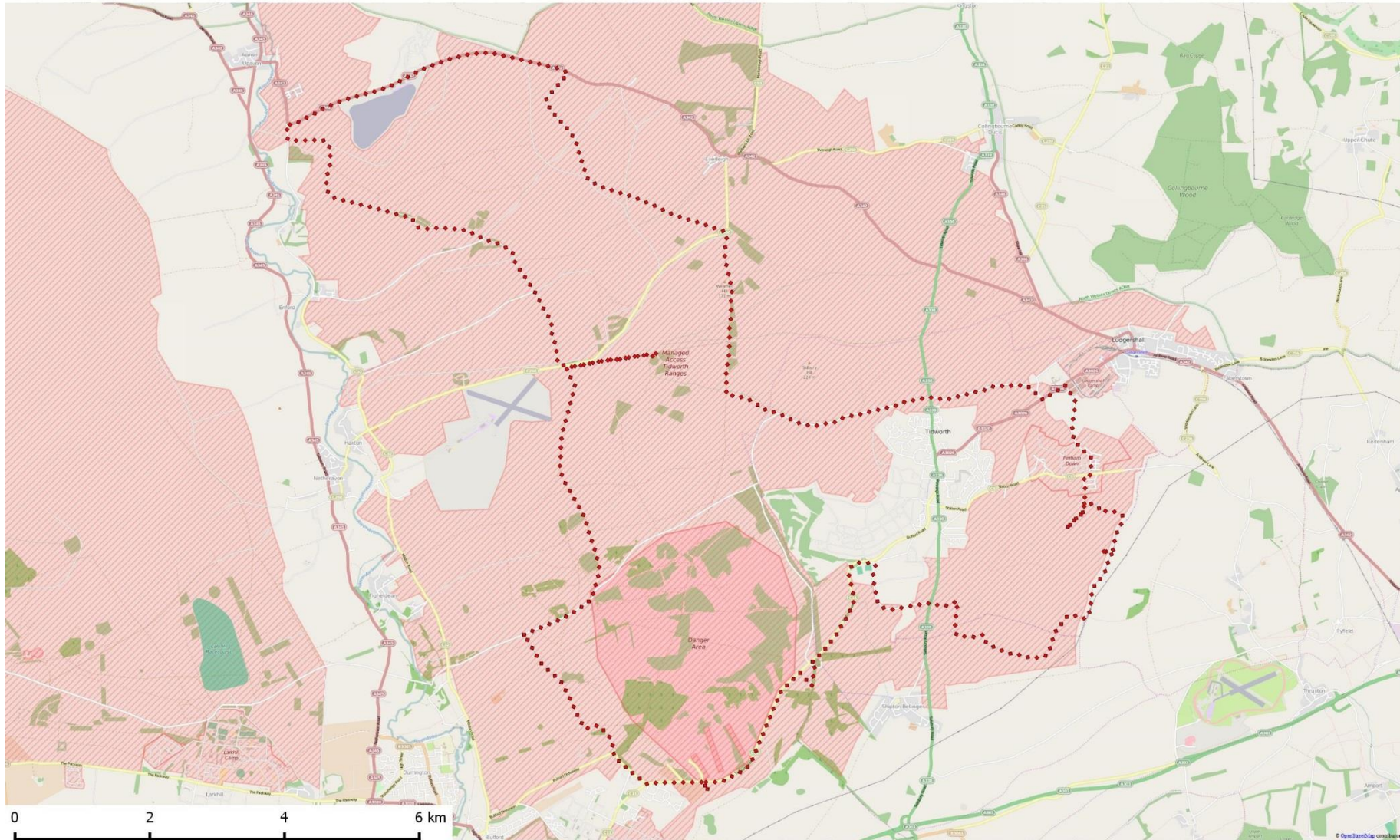
Transect Count	Date	Type	Start time
1	04/8/2015	Weekend	11:15
2	04/8/2015	Weekend	15:03
3	08/8/2015	Weekday	09:20
4	08/8/2015	Weekday	12:37
5	12/8/2015	Weekend	07:35
6	12/8/2015	Weekend	10:34
7	16/8/2015	Weekday	09:20
8	16/8/2015	Weekday	13:00

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Transect Count	Date	Type	Start time
9	18/8/2015	Weekend	12:05
10	18/8/2015	Weekend	14:54
11	26/8/2015	Weekday	13:24
12	26/8/2015	Weekday	16:15
13	29/8/2015	Weekday	07:04
14	29/8/2015	Weekday	10:00
15	31/8/2015	Bank Holiday	10:55
16	31/8/2015	Bank Holiday	13:40
17	31/8/2015	Bank Holiday	16:28

Map 2. The route of the driving transect within Tidworth Ranges.

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Automated counters

- 2.6 In order to get counts of visitor flows from different locations, a range of automated counters were used. Counters had been used in the previous 2006 survey and are a useful supplement to field surveys on such a large site with diffuse access over a wide area. The types of counters used included fixed beam counters, infra-red sensors and cameras. Where possible camera were placed low to the ground so as to record feet (and therefore avoid collection of personal data where individuals can be recognised). A selection of images of the counters is shown in Figure 1.
- 2.7 Counters were deployed at particular locations for roughly a week at a time. The locations of these deployments are shown in Map 3 and summarised in Table 2. These locations were selected to have good spatial spread across the Plain, to supplement other survey locations and cover a range of levels of footfall/types of use. Locations included main access points from towns/villages (used by cars or solely as foot access) and both major and minor off-road access points. Counts therefore usually included numbers of vehicles, as well as the number of people.
- 2.8 At one of the planned locations; Bardens's Clump, East Plain (Location 2, Table 2), a camera trap was planned to be used. This area would have been particularly useful in assessing impacts in an important area. However the camera could not be fixed in a location at Bardens's Clump where it worked to record passing traffic.
- 2.9 Data retrieved from sensors and cameras were simplified to remove possible duplicate passes, whereby a single person or vehicle was recorded several times, due to pausing in front of the sensor or to their approach angle. This was achieved based on the assumption that passes within a single minute were from the same event and where multiple registrations were recorded within a minute only one event was assumed. This approach is likely to ensure more accurate recording of the number of passes on quiet sites, however at busier sites there is the possibility that multiple groups of people/cars could pass a sensor within a single minute and therefore the calculation is a conservative estimate.
- 2.10 Sensor counts are an approximation and from using both infra-red sensors and camera sensors we were able to see that the sensors perform well. Errors, such as sensors triggered by animals were at a very low level. Such errors were removed from the camera sensor data.
- 2.11 In addition, as part of data cleaning, we removed the first and last days of data which included the setting up and retrieval of the unit. This ensured seven full continuous days of data.

Table 2: Details for each sensor deployment including type of sensor used and a description of the location.

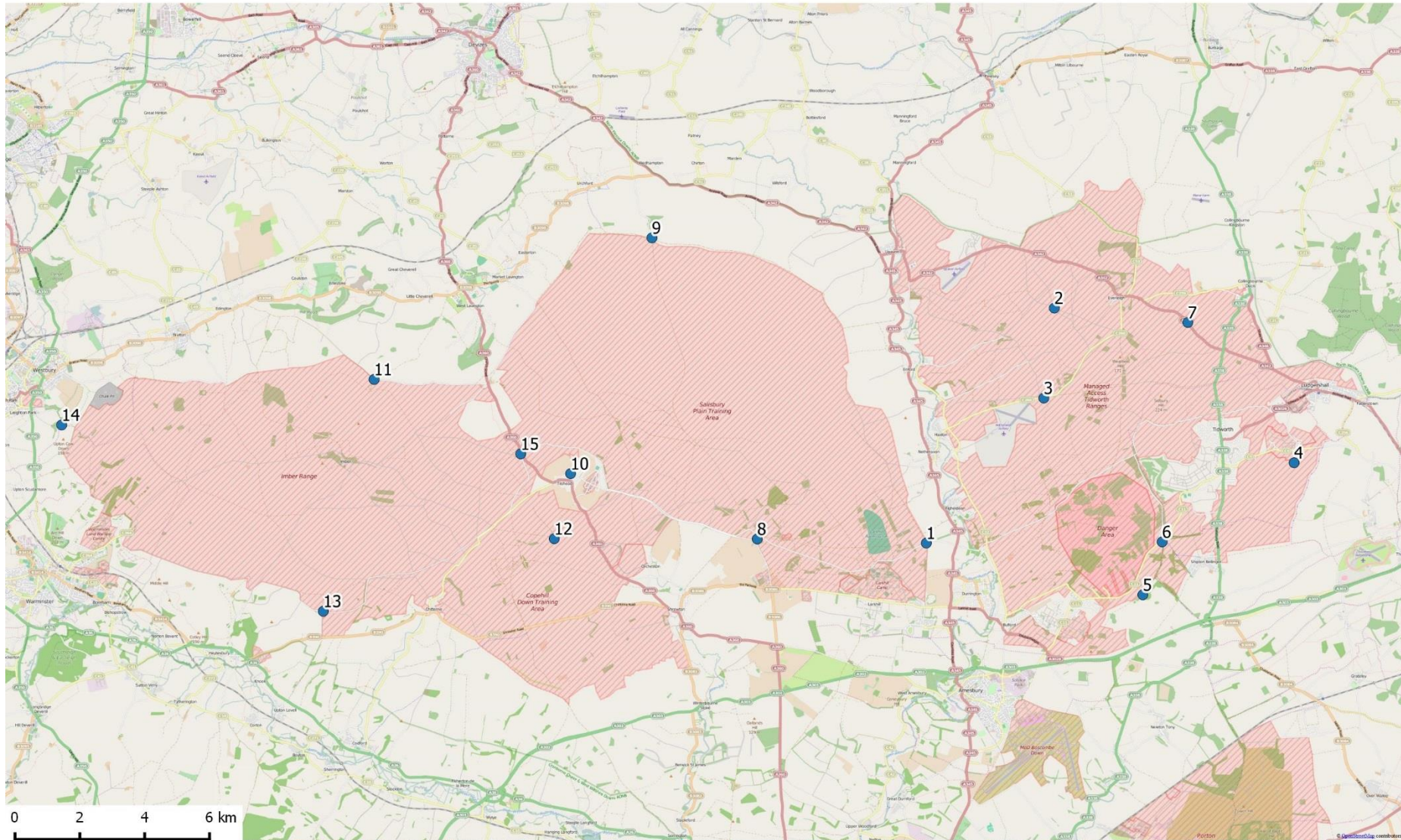
ID	Location Name	Location Description
East Plain		
3	Beach's Plantation (TC)	Location 3: Bushnell camera attached to MOD signage beside track crossing on the southern side of the main road, near Beach's plantation, on the main road between Everleigh and Netheravon.
4	Perham Down	Bushnell camera. Attached to MOD information sign along Benin Road (just after the housing ends), in Perham Down, to monitor access to Lamb Down/Warren Hill.
5	Beacon Hill	Location 5: Bushnell camera. Attached to a hawthorn along the main track (a designated footpath) at Beacon Hill, to the East of Bulford Camp.
6	Milston Down (TC)	Location 6: Trailmaster beam (transmitter and receiver). Attached to the metal tank crossing posts, on the southern side of the road, which are at the eastern end of the rifle ranges.
7	Drop Zone	Trailmaster IR sensor. Attached to behind the MOD information sign, just off the main road, on the track (designated footpath) up to the drop zone.
Central Plain		
1	Alton Sentry Post	Bushnell camera. Attached to a main locking post on red access gate at the sentry post (it does not stop the gate being opened or closed), along the main track. Sentry post at a crossroads, at the end of track, of which the nearest access point is the Alton tank crossing.
8	West Down camp	Attached to MOD signage in hedge along tarmacked road, which heads east out of West Down camp. Nearest map feature is the disused Greenlands camp
9	Redhorn Vedette	Trailmaster IR sensor. Attached to a fence post, beside the red access gate which provides access to the danger area from Redhorn Vedette.
10	Tilshead	Trailmaster IR sensor, attached to a tree, monitoring access along the byway from Tilshead, heading north into the central plain.
West Plain		
11	footpath to Cheverell	Trailmaster IR sensor, attached to a tree, monitoring access off the Wessex Ridgeway, located along a footpath to Cheverell.
12	Copehill Plantation	Attached to the byway sign at the Copehill plantation, located to the east of the Copehill training village. Records access along the byway from Tilshead village into the Copehill training area.
13	Quebec Farm	Attached to post marker, beside the byway sign, to count visitors in from Quebec Farm to the Imber Perimeter Path.
14	White Scar Hanging	Attached to a metal gateway/step along the Wessex Ridgeway, at White Scar Hanging, closest access point to this is from the pumping station at Wellhead Springs, to the SE of Westbury.
15	Lavington Down Byway	Trailmaster IR sensor, attached to an MOD information sign, alongside the byway which provides access to the West Plain (near to Tank Crossing F).
<p><i>*Note: Location 2 was planned to be at Bardens's Clump (East Plain), but the camera could not be fixed in a location where it worked well, hence the gap in numerical sequence.</i></p>		



Figure 1: Sensors and camera traps used. a) Infra-red sensor b) Bushnell camera trap, in secure housing which is padlocked to suitable structure.

Map 3. The location of proposed camera traps.

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Face-face interviews & counts of visitors

- 2.12 Interviews were conducted at 18 locations (Table 3 and Map 1), selected to reflect survey points used in the previous 2006 survey and based on advice/recommendations from DIO (Defence Infrastructure Organisation). The locations used include areas which are outside the Salisbury Plain SAC, for example Warren Hill, south of Perham Down. **These areas outside the SAC were included for reference, to understand wider access patterns and provide consistency with the previous surveys. However it should be noted that impacts in these areas are of less concern than in the SAC.**
- 2.13 Surveyors were stationed at the survey point and counted all visitors entering/leaving the site. This tally data provides basic information on the visitor flows (number of people, groups and dogs) passing each point. Most survey points were located along tracks, rather than in a terminating car park, as such surveyors also recorded any vehicles passing the exact survey point, also noting the direction of travel.
- 2.14 People were selected at random to be interviewed; achieved through surveyors approaching the next person seen (if not already interviewing).
- 2.15 Working military personal or vehicles were not included in tally counts or interviewed but were noted. Any off-duty military not in uniform, but accessing sites for recreation or exercise (e.g. walking or running) were counted and approached for interviewing. No unaccompanied minors were approached or interviewed.
- 2.16 Each interviewer carried a name badge/photo ID and wore a high-vis, green jacket. Interviewers also, when positioned by their car, had a poster clearly displayed in their car-window to indicate that the visitor surveys were taking place. Visitors were therefore aware of the survey taking place as they approached.
- 2.17 The questionnaire responses were recorded on tablet computers in the field. The questionnaire contained a range of questions relating to the visit that day, general access patterns, other sites visited and home postcode. Route data (where interviewee had been on that visit or planned to go after the interview) were plotted in the field as part of the questionnaire process, using paper maps. The questionnaire is included as Appendix 1.
- 2.18 Sixteen hours of survey work was conducted at each location, covering different times of day (07:00-09:00; 10:00-12:00; 13:00-15:00; 17:00-19:00) with each session undertaken over one weekend day and one weekday. Survey work was undertaken during the school holiday period, predominantly August 2015 and covered the period 31st July 2015 to 6th September 2015. Survey locations and survey dates are summarised in Table 3. During August the weather was quite unsettled and generally cool, with temperatures frequently lower than average². Heavy rain and thundery downpours were occasional in the latter half of the month. Survey points which had rainfall for much of the session were at Heytesbury (10), Redhorn Vedette (13) and Tank crossing

² <http://www.metoffice.gov.uk/climate/uk/summaries/2015/august>

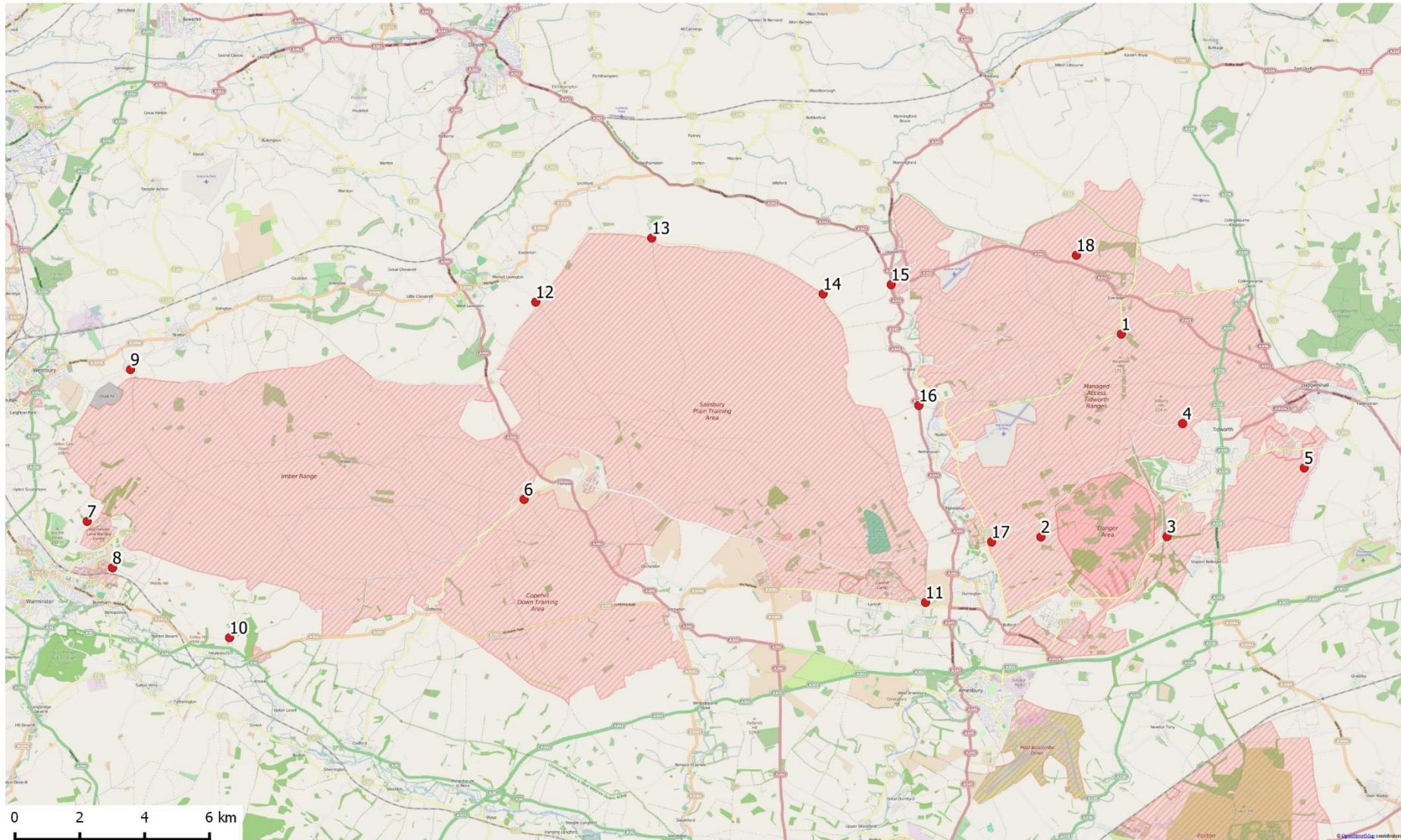
B/B1 (16). Other survey sessions such as Westbury White Horse (9) and Larkhill Driving Range (11) were cool and cloudy for most survey periods. Conditions at Battlesbury (8) and Weather Hill (1) were the most favourable; with warm, sunny conditions for most sessions. Otherwise, most other survey points had reasonably average weather conditions. These conditions should be considered in relation to relative number of visitors and the relative proportions of different activities observed.

Table 3: Survey points: face-face interviews and counts

Survey point ID	Survey point name	Location description	Survey dates
East Plain			
1	Weather Hill	Very large area open for parking, on east side of road	31/07/2015 02/08/2015
2	Bulford Field	Along Milston Drove, at a crossroads	01/08/2015 03/08/2015
3	Tidworth Belt	Large parking area along Tidworth Road	14/08/2015 16/08/2015
4	Tidworth / Sidbury Hill	A well-used, grassy parking area alongside a track	02/08/2015 03/08/2015
5	Warren Hill	A well-used, grassy parking area alongside a track	13/08/2015 15/08/2015
17	Milston Road parking	At an informal parking point, alongside the byway, off Milston Road	09/08/2015 10/08/2015 11/08/2015
18	West Everleigh Down	Accessed from lower Everleigh, at the intersection of several tracks	31/07/2015 01/08/2015
Central Plain			
11	Larkhill Driving Range	Along the byway, just off the road, opposite the driving range car park	21/08/2015 22/08/2015 23/08/2015
12	Lavington Vedette	Sentry post and parking areas	28/08/2015 30/08/2015
13	Redhorn Vedette	Sentry post and parking areas	14/08/2015 16/08/2015
14	Caterly Vedette	Sentry post and parking areas	13/08/2015 15/08/2015
15	Tank crossing A/A1	In the widened passing point, at the tank crossing (west side of main road)	08/08/2015 10/08/2015 11/08/2015
16	Tank crossing B/B1	In the widened passing point, at the tank crossing (west side of main road)	22/08/2015 23/08/2015 24/08/2015
West Plain			
6	Tilshead Water Tower	Surveying in one of the three set car parking areas; (but exact choice determined on conditions on the day – has been used for storage)	27/08/2015 29/08/2015
7	Cradle Hill	Based at intersection (or end parking area, depending on usage)	21/08/2015 22/08/2015 25/08/2015
8	Battlesbury Hill	On main track, at foot access point to the Battlesbury hill fort	28/08/2015 06/09/2015
9	Westbury White Horse	Large dedicated car parks for the White Horse	27/08/2015 05/09/2015
10	Heytesbury/Imber Rd	Foot access to the Imber Range Perimeter path	20/08/2015 23/08/2015

Map 4. The location of survey points.

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3. Results

Driving Transect Counts

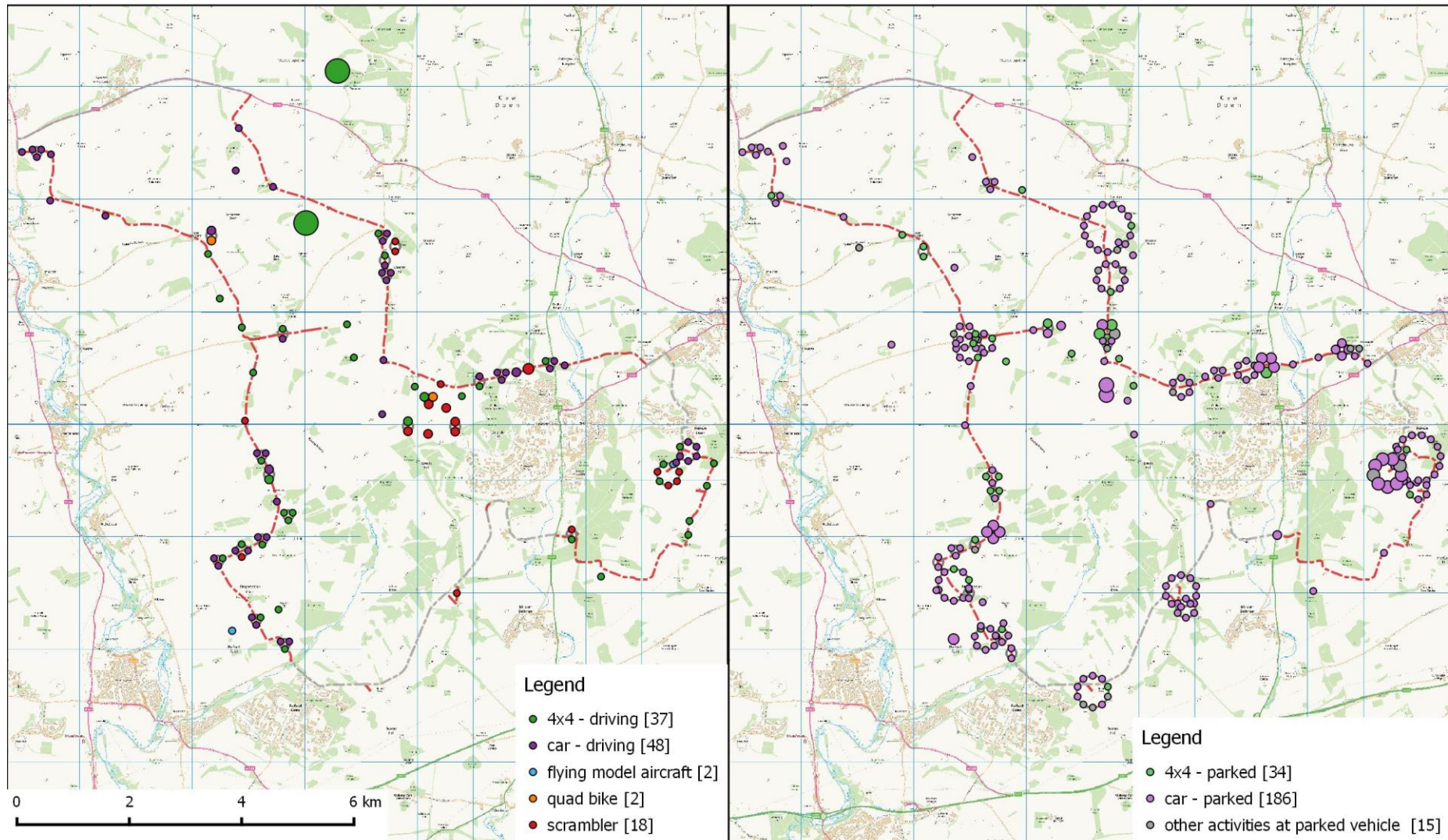
- 3.1 In total, 608 individual spatially referenced events were recorded on the 17 repeats of the driving transect across the East plain. The individual activities recorded during driving transects are presented in Table 4 and shown in Maps 5 and 6. Counts recorded a total of 473 vehicles on the site and 448 people not in/on a vehicle in the 38 hours and 12 minutes of surveying. Completion of a transect took on average two hours and 14 minutes. Areas surveyed alongside the transect were subject to topographic constraints or site features, meaning some areas could not be seen. The average distance of each event to the transect was 98 metres and the maximum distance 1.5km.
- 3.2 The majority of events observed were of vehicles (cars, vans or 4x4) driving along tracks or parked on site (Table 4). Almost half of the events (306) recorded on the site were of vehicles, the majority of which (77%) were cars or vans, as opposed to 4x4s. Individual events included groups of cars parked or driving together. In addition, events such as dog walkers beside their car, or in the process of unloading/loading their dogs were characterised as dog walkers, but the cars also counted. These activities add an additional 45 vehicles to provide a total of 473 counted on the site. Most cars or vans recorded were usually recorded as parked on the site, apart from 4x4 vehicles which were usually recorded as driving, rather than parked on the site. Furthermore, on average, a similar proportion of parked vehicles were observed on weekdays compared to weekend days. However, the proportion of vehicles driving on the site was greater on weekends compared to weekdays. The greatest difference between the bank holiday and weekend or weekdays, was in the number of cars parked and the number of 4x4 vehicles driving on the site.
- 3.3 Observations of cars, both moving and parked, are often clustered around access points (Map 5), but are also very infrequent throughout the rest of the transect. Observations of 4x4 vehicles are occasionally more widespread across the surveyed areas and more often away from the transect, which follows a main track. A group of ten 4x4 vehicles were observed in two different locations on a single visit, shown as the largest markers in Map 5. The 4x4 vehicles, and scramblers in particular, were often recorded in the Tank obstacle course and in the south east corner of the transect, around Warren Hill. However, other motorised activities occur at a relatively low frequency, with 18 scrambler groups, of in total 30 individual bikes counted, and two quad bike groups (3 individual vehicles in total).
- 3.4 Considering other activities which did not involve motorised vehicles, dog walking was the most common activity at 28% of all events. The average number of dog walkers recorded on a transect was greater on weekends than weekdays, but these were not considerably different (Table 4). The highest densities of dog walkers were recorded in the Lamb Down-Warren Hill area and in Bulford Field. Of the 299 dogs observed during transects, 12% were on a lead.

- 3.5 There were roughly similar numbers of events of runners/joggers (34), walkers (31) and cyclists (20) on the transects. Runners/joggers and walkers were most often recorded near to towns, e.g. Tidworth and Bulford Camp, while cyclists were slightly more dispersed.
- 3.6 Other activities recorded at low frequencies were wildlife watchers, horse riders, and people sitting/picnicking beside their car. These were generally dispersed across the site, but there are very few observations. In addition, activities grouped in the 'other' category, shown in Table 4 were four single observations of: a cyclist and jogger side-by-side, some entomologists netting, a group flying kites, and a couple painting.
- 3.7 Statistical tests on the number of events of different activities recorded (Table 4) showed these clear differences. Differences in the number of events of each activity per transect were statistically significant (Kruskal-Wallis; $H=88.78$, $df=16$, $p<0.001$). The degree to which the number of events differed per activity compared to the total was examined (z scores). These scores showed that the number of 4x4s, cars and dog walkers per transect were greater than the average number of events of all activities.
- 3.8 Overall highest densities of people were recorded in discrete hotspots. These areas are: a large area covering Lamb Down and Warren Hill (south of Pernham Down); the parking areas to Bulford Down (between the road between Bulford Camp and Tidworth); Bulford field and Milton Drove (north of Bulford Camp); and the access point at Weather Hill (south of Everleigh). The highest densities of people and vehicles were often at access points or locations just in from access points. Some noted areas were typically 500-1,000m in from the nearest access point e.g. Bulford Field, Sidbury Hill Plantain, Weather Hill (along The Old Marlborough Road track). However, the exact areas are quite specific in the suitability of tracks, parking areas, military use etc. Areas with the lowest number of events recorded were generally in the northern half of the transect (e.g. Everleigh Down, Littlecott Down, Rainbow Bottom, Coombe Hill).

Table 4: The different activities recorded shown for all the driving transects and separately for the bank holiday Monday, weekdays and weekends. The 'other' group sums all activities for which there was only one event recorded.

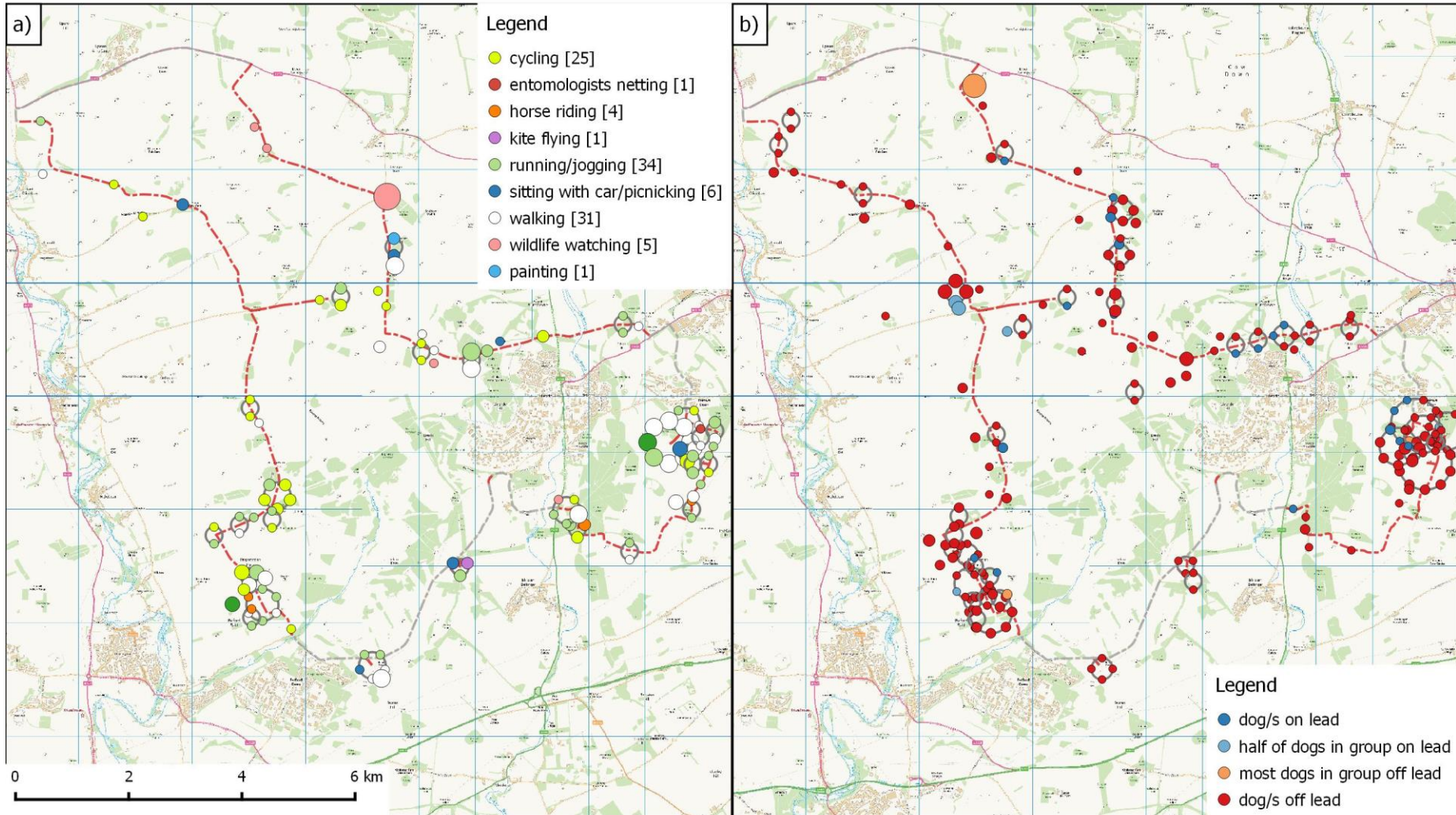
Activity	Total number of events	Percentage of events	Average number of events per transect	Average number of events per transect per day type		
				Bank holiday	Weekday	Weekend
Car/van – parked	187	31	11.0	13.3	9.5	11.8
Dog walker	172	28	10.1	9.3	9.1	11.8
Car/van – driving	48	8	2.8	2.0	2.4	3.8
4x4 – driving	37	6	2.2	4.3	1.3	2.3
4x4 – parked	34	6	2.0	2.0	2.0	2.0
Runner/jogger	34	6	2.0	1.0	1.6	3.0
Walker	31	5	1.8	3.0	0.9	2.5
Cyclist	20	3	1.2	1.0	1.0	1.5
Scrambler	18	3	1.1	1.3	0.3	2
Sitting with car/picnicking	6	1	0.4	0.3	0.1	0.7
Wildlife watching	5	1	0.3	0	0.4	0.3
Cyclist with dog	4	1	0.2	0	0.3	0.3
Horse riding	4	1	0.2	0	0.1	0.5
Flying model aircraft	2	0	0.1	0	0	0.3
Quad biker	2	0	0.1	0	0	0.3
Other	4	1	0.2	0	0.1	0.5
Total	608	100	35.8	37.7	29.0	43.8

Map 5: Distribution of activities involving motorised vehicles or model aircraft from driving transects. Points displaced when overlapping and sized by the number of vehicles.



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Map 6: a) Distribution of activities not involving motorised vehicles from driving transects, excluding dog walkers. b) Distribution of dog walkers from driving transects, categorised by whether the dog or proportion of dogs were off lead. Points displaced when overlapping and sized by the number of people/dogs.



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Automated Counters

3.9 Counters were deployed at a number of locations across Salisbury Plain. The majority of sensors covered the entire 7 day period; after removing the incomplete data from deployment and retrieval (Table 5). However, a number of units were subject to malfunction and errors. While some sensors were found to be missing when revisited after the week's deployment. For sensors which had a complete malfunction we placed a second deployment, while for those which went missing we did not attempt a second deployment.

Table 5: The deployment period covered for different sensors.

ID	Location Name	Sensor type	Deployment		Days covered
			Start date	End date	
East Plain					
3	Beach's Plantation(TC)	Beam (1 st deployment) Camera (2 nd deployment)	04/08/2015	05/08/2015	1 (1 st deployment: removed, 2 nd deployment: missing)
4	Perham Down	Camera	12/08/2015	20/08/2015	5 (1 st & 2 nd deployment: malfunction)
5	Beacon Hill	Camera	04/08/2015	12/08/2015	9
6	Milston Down (TC)	Beam	12/08/2015	20/08/2015	9
7	Drop Zone	Infra-red	04/08/2015	12/08/2015	9
Central Plain					
1	Alton Sentry Post	Camera	04/08/2015	-	0 (missing)
8	West Down camp	Infra-red	20/08/2015	28/08/2015	9
9	Redhorn Vendette	Infra-red	12/08/2015	-	0 (missing)
10	Tilshead	Infra-red	12/08/2015	20/08/2015	9
West Plain					
11	footpath to Cheverell	Infra-red	12/08/2015	20/08/2015	9
12	Copehill Plantation	Camera	20/08/2015	23/08/2015	3 (Malfunction)
13	Quebec Farm	Infra-red	20/08/2015	28/08/2015	9
14	White Scar Hanging	Infra-red	20/08/2015	28/08/2015	9
15	Lavington Down Byway	Infra-red	12/08/2015	20/08/2015	9

3.10 Data are summarised in Table 6 and Map 7 which gives totals for each sensor.

3.11 Highest counts were recorded at sensor location 4, which although not having complete coverage due to a malfunction, recorded the highest number of passes. This location was one of the few which counted both pedestrian access and vehicles passing and there was parking at a number of areas nearby. Furthermore, this sensor was a camera unit and as such individual frames were fully interrogated, ensuring a high level of accuracy. In addition it should be noted that the sensor indicates minimum the level of access onto the Warren Hill area. For example, interviews and driving transects noted a number of scramblers in the Warren Hill area, none of which were recorded by this camera sensor and therefore must access at other locations.

3.12 Other sites with a high number of passes, approximately 400 to 600 passes in a week, were locations 5, 6 and 8. Locations 5 and 6 cover similar areas, showing access levels

on Beacon Hill. Location 5, a camera trap along a footpath, focused primarily on foot access from Bulford Camp and to a lesser extent from the several car parking areas along the Bulford to Tidworth road. While location 6, a break-beam located on the tank crossing posts, monitored primarily vehicles driving into the main car parking area off this road.

3.13 All other locations were relatively quiet with between 30 to 150 passes over the seven day period. All these other locations were located along footpaths or byways to monitor foot or vehicle access, often with little overlap in these. The locations were mostly away from main access points and were expected to represent the wide range of quieter access points.

3.14 The majority of sensors show relatively equal number of passes on weekdays and weekends (Table 6). Sensors with a large increase in the average number of visits on weekends compared to weekdays included location 13 and 7. Both locations had low access levels on both types of day, but these were over double the number on weekends as weekdays. Location 15 was one of the few sites with a greater average daily number of passes recorded on weekdays than weekends. This location was monitoring access on a very small off road track (formal, signposted byway), which was quite rutted and almost impassable to ordinary vehicles. The greater average number of passes at this location on weekends suggest that off-roading activity can be greater on a weekday than a weekend.

Table 6: The total number of passes and average daily number of passes on a weekday and weekend day recorded by each sensor.

ID	Coverage (complete days)	Total number of passes	Average daily number of passes	
			weekday	weekend
6	7	564	86.6	97.0
7	7	149	15.2	36.0
8	7	447	49.4	61.0
10	7	41	5.4	5.0
11	7	38	6.4	8.5
13	7	46	2.8	9.0
14	7	69	9.3	13.0
15	7	30	7.0	4.0
5	7	390	142.8	133.0
4	4*	663	137.0	110.5
12	3*	9	3.0	2.5
3	0*	47	-	-

**Partial coverage was only obtained for these locations*

3.15 Examination of the number of passes recorded across the day suggests most locations with lots of data show expected distributions (Figure 2). Expected distributions would typically show two peaks in early morning and late afternoon. Locations 5 and 6 show

these expected dual peaks (bimodal distribution), with separate peaks in the early morning around 9:00) and again in the late afternoon c.17:00-18:00. A clear exception to this is location 8, which monitored primarily foot access out of Tidworth. This location was relatively quiet during the mornings and busiest in afternoons 15:00-17:00. For other locations visits were fairly sporadic (e.g. location 7) or fairly consistent across the day. Although these other locations have little data to know this with certainty.

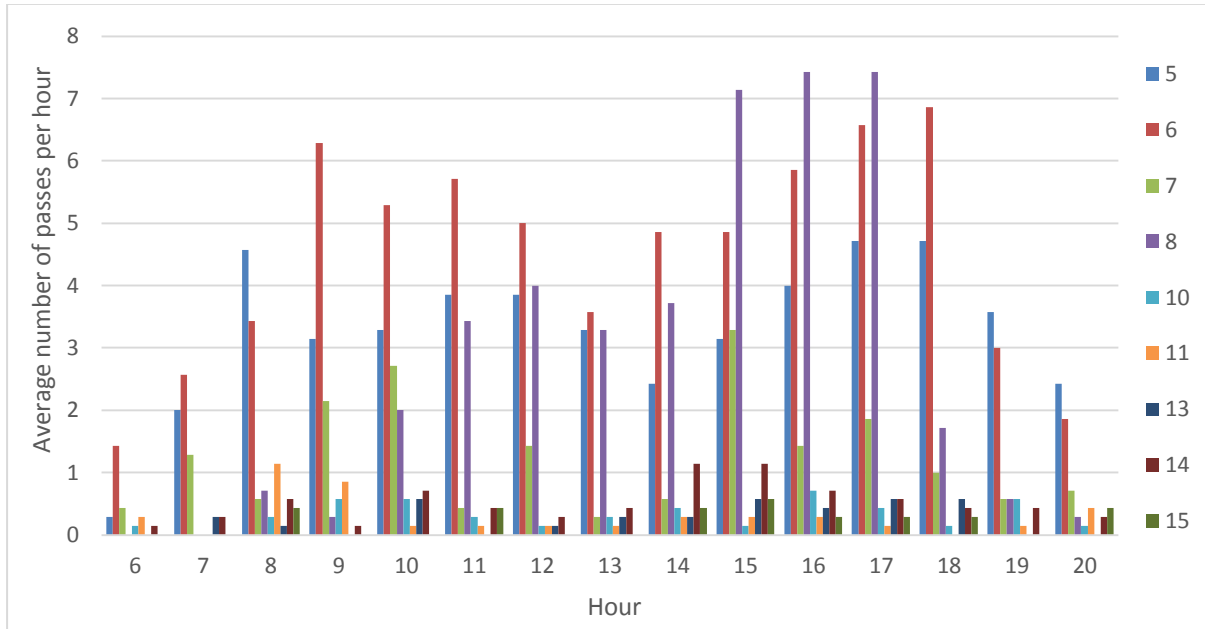
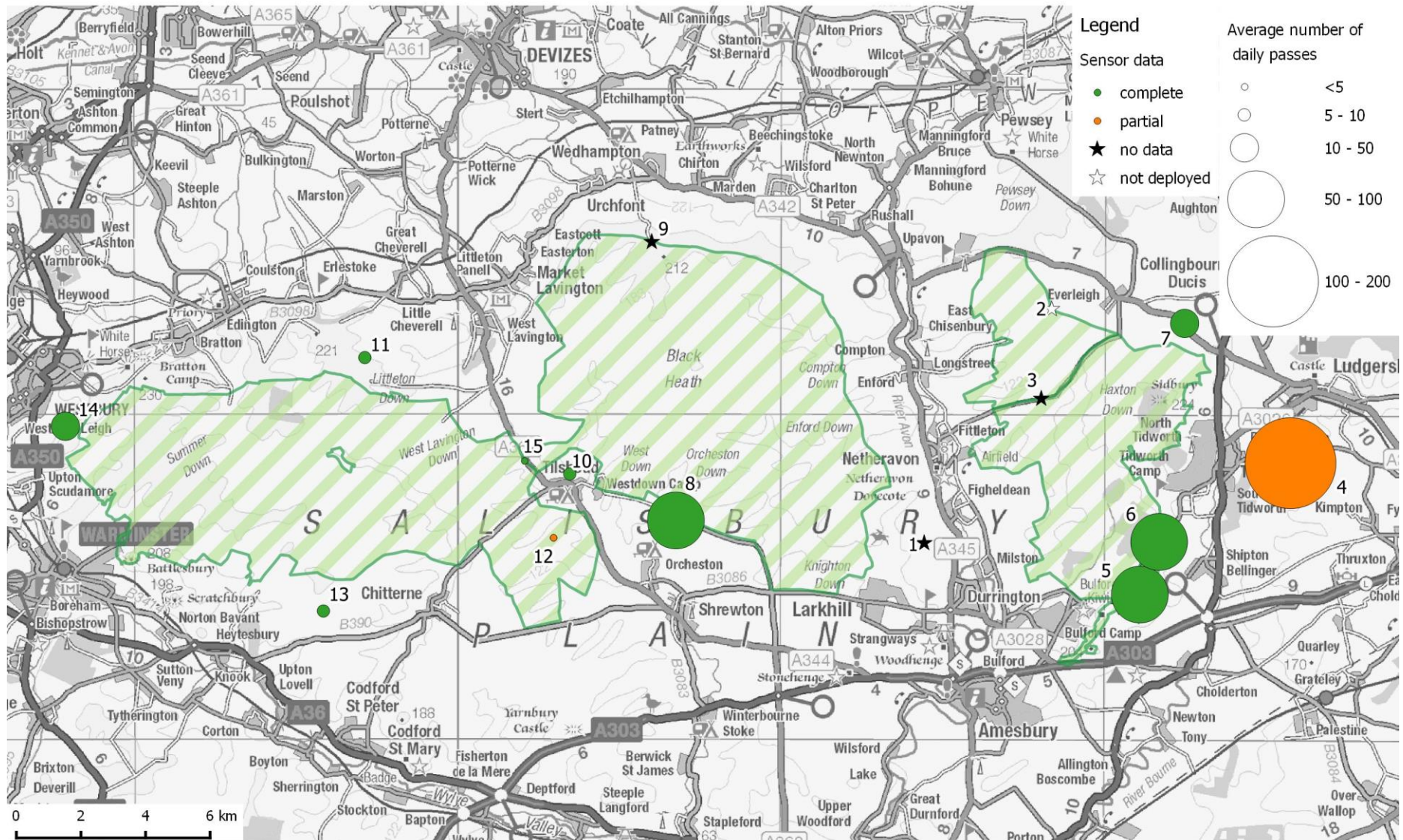


Figure 2: The average number of passes recorded per hour (between the hours of 06:00-20:59).

Map 7: The sensor locations labelled by data completeness and sized by the relative number of passes recorded at each sensor.



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Tally Counts

- 3.16 Counts of the number of vehicles and people passing the survey location were maintained by the surveyor whilst conducting interviews. Counts are summarised in Table 7 and Map 8.
- 3.17 The tally counts, shown in Table 7, recorded a total of 926 vehicles, 1,753 people (including minors) and 1,142 dogs entering or leaving at the 18 survey locations. Counts of vehicles were only taken if the vehicle was passing the survey point and *not* stopping in the immediate area³.
- 3.18 The relative number of vehicles and people recorded entering and leaving sites varied depending on the nature of the interviewing location. Many survey points were located at a parking area on a byway and therefore counts tended to involve roughly similar numbers of people walking past and vehicles passing. Notable exceptions included location 16, a survey point at a tank crossing immediately off the main road, where a greater proportion of vehicles were recorded as few users seem to park here. Most interviewing locations in the Central Plain recorded a high number of vehicles, particularly scramblers or quad bikes, driving past the surveyor. Conversely, in the western Plain interview locations were mostly at car parking areas, with only locations 8 and 9 located along informal roads/tracks or formal byways. Locations 6 and 10 were the only interview locations on the whole of the Plain which no vehicles were recorded entering or leaving. At all other locations scramblers/quad bikes were recorded in tallies and at 70% of locations cars/4x4s were recorded. At locations 12, 13, 15, 16 and 18 the number of vehicles observed exceed the number of people, often by a considerable margin.

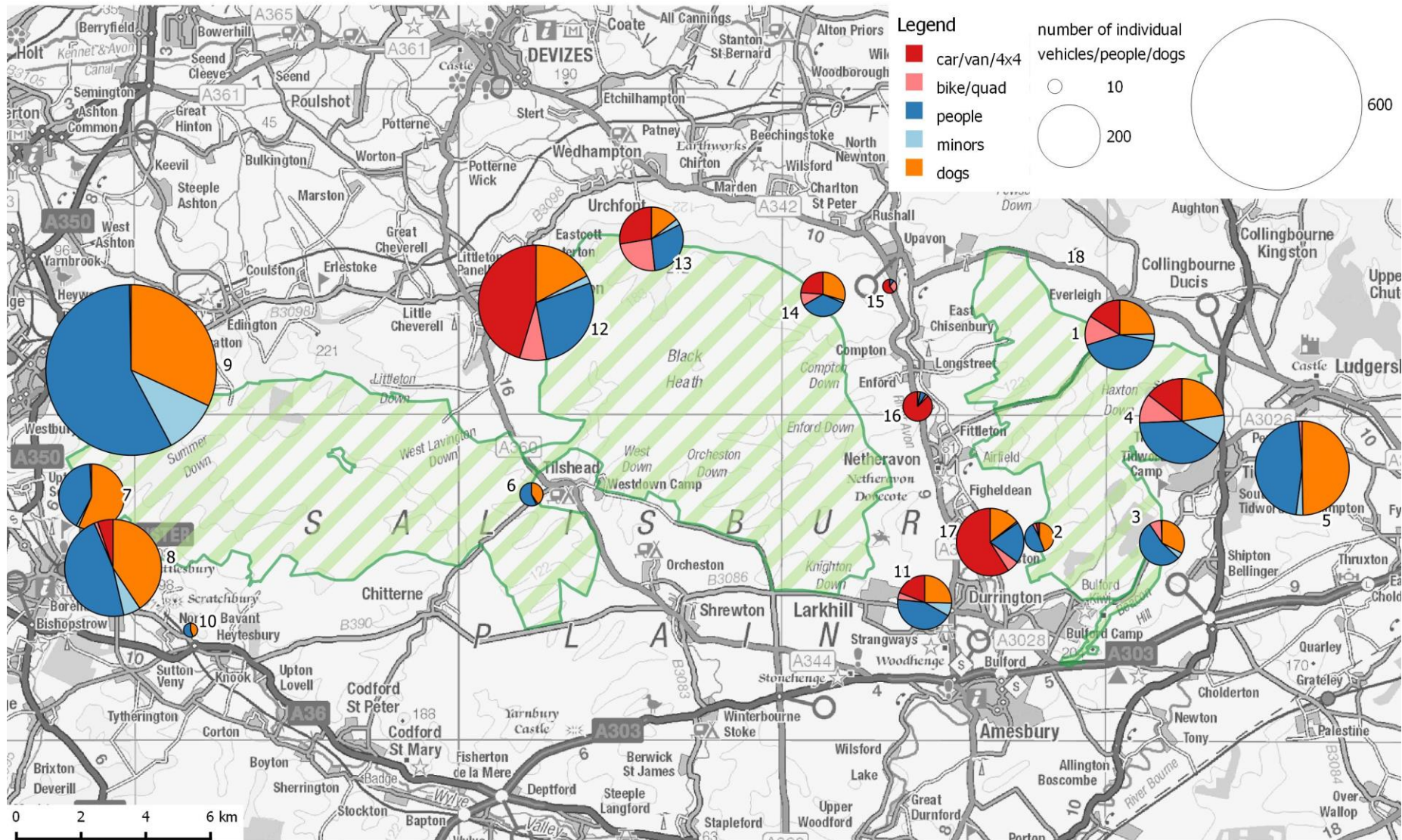
³ i.e. if a vehicle stopped at the survey point and the occupants then walked on the site, then only the people walking were counted and not the vehicle.

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Table 7: The number of vehicles, people and dogs recorded both entering and leaving during the 16 hours of surveying at each location.

ID	Location Name	ENTERING						LEAVING					
		Total vehicles entering		Total people/dogs entering				Total vehicles leaving		Total people/dogs leaving			
		car/van/4x4	bike/quad	groups	people	dogs	minors	car/van/4x4	bike/quad	groups	people	dogs	minors
1	Weather Hill	19	18	35	58	32	6	21	16	34	47	29	2
2	Bulford Field	2	2	20	25	23	0	2	2	20	25	23	0
3	Tidworth Belt	0	7	33	50	29	4	1	7	27	36	23	3
4	Tidworth	29	17	35	74	37	20	15	17	28	49	32	14
5	Warren Hill	0	2	54	80	87	6	0	2	53	77	80	2
6	Tilshead Tower	0	0	17	27	17	2	0	0	12	21	17	0
7	Elm Hill	0	2	35	52	74	2	0	0	31	45	58	1
8	Battlesbury	7	2	50	78	68	7	11	2	50	86	73	13
9	Westbury White Horse	0	1	93	177	103	34	0	1	87	173	91	29
10	Heytesbury	0	0	4	5	4	0	0	0	0	0	0	0
11	Larkhill Driving Range	24	4	24	37	23	7	13	4	27	47	26	8
12	Lavington Vedette	127	31	42	60	37	2	60	0	33	54	34	7
13	Redhorn Vedette	38	49	23	40	17	4	25	6	16	30	16	3
14	Casterley Vedette	26	12	21	31	27	1	12	3	15	25	20	2
15	Tank crossing A/A1	8	2	1	3	0	0	10	7	0	0	0	0
16	Tank crossing B/B1	52	2	2	3	2	0	40	1	3	4	1	0
17	Milston Road parking	74	3	17	21	18	1	69	11	19	27	17	1
18	West Everleigh Down	3	1	1	2	2	1	4	0	2	2	2	0
Total		409	155	507	823	600	97	283	79	457	748	542	85

Map 8: The number of individual vehicles/people/dogs recorded entering or leaving at each survey point across the Plain.



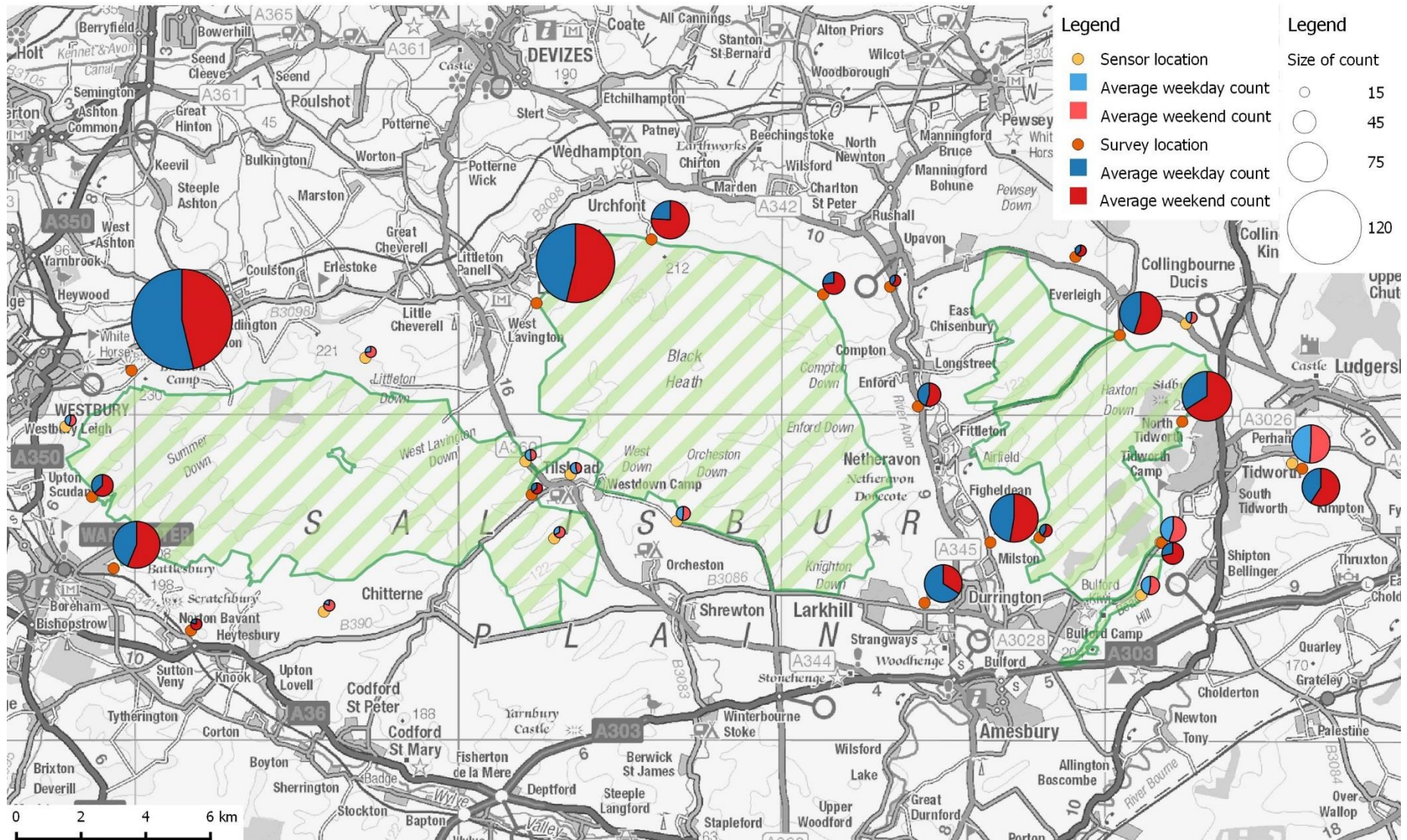
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- 3.19 There was some variation in group size (number of people per party) recorded at each survey point. The smallest mean group size (1.3 people per group) was recorded at survey points 2 (Bulford Field) and 10 (Heytesbury) and the small group size probably reflects a high proportion of lone dog walkers. Mean group size by contrast was high at survey points 15, 4 and 9 (Tank crossing A/A1; Tidworth; and Westbury White Horse) where the mean group size at each was above 2 people per group. These higher groups probably indicate (at least at Tidworth and Westbury) a higher proportion of families.

Combined Tally and Sensor Counts

- 3.20 Tally and automated counts generate different data but essentially both are measures of how busy each location is. To allow these data to be more comparable, tally counts of people and vehicles were combined and sensor counts were adjusted to the same surveying hours as the tallies.
- 3.21 The adjusted tally and sensor data are shown together in Map 9. Combined datasets suggest Westbury White Horse to be the busiest location, followed by Lavington Vedette. However, these sites include both parking areas and byways passing through and therefore counts include of people visiting and people/vehicles passing through. The main factor in the number of passes recorded is the overall type of the access point. There were many sensors and survey locations at very quiet sites such as footpaths and byways where access was very infrequent compared to large parking areas.
- 3.22 These data are not directly comparable and should be treated with some caution when combined in this way, but the approach provides a single overview of visitor use. We believe automated counter data are likely to be higher than tally data collected by a surveyor. Differences will occur because sensors are counting specific point passes, whereas surveyors often count all people/cars within a small area. Also, a sensor is subject to false counts. For example, the single point where a sensor and surveyor were at the same location (survey point 3, sensor location 6), the surveyor recorded an average count of 15.5 and 38.5 on a weekday and weekend respectively. Whereas the sensor recorded an average of 36.4 on a weekday and 45.0 on the weekend. Likely differences are due to the sensor (a break beam) being located on the tank crossing posts and traffic pausing before pulling out onto the road, particularly farm machinery, inflating the counts.

Map 9: The adjusted counts from tallies and sensors.



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Interviews

Overview

3.23 A total of 363 interviews were conducted. Westbury White Horse (survey point 9) was the location with the most interviews (15% of all interviews) and survey points 10 (Heytesbury), 16 (Tank crossing B/B1) and 18 (West Everleigh Down) were particularly quiet, all with less than 5 interviews (Table 8). In total, there were 620 people in the 363 interviewed groups and 462 dogs, giving an average group size for the interviewed groups of 1.71 people and 0.75 dogs. Four-fifths (80%) of interviewees had at least one dog with them. While most with a dog had just one dog with them (49% of all interviewees), the number of dogs per interviewee ranged up to nine.

Table 8: Number of interviews and group size of interviewed groups, by survey point.

Survey Point	Survey Point name	Number (%) of interviews	Total people (%) in interviewed groups	Mean group size of interviewed groups	Number of dogs with interviewees	Ratio dogs per person in interviewed groups
1	Weather Hill	17 (5)	28 (5)	1.65	23	0.82
2	Bulford Field	13 (4)	18 (3)	1.38	18	1
3	Tidworth Belt	21 (6)	33 (5)	1.57	25	0.76
4	Tidworth	20 (6)	50 (8)	2.5	29	0.58
5	Warren Hill	32 (9)	42 (7)	1.31	56	1.33
6	Tilshead Tower	19 (5)	33 (5)	1.74	20	0.61
7	Elm Hill	34 (9)	50 (8)	1.47	63	1.26
8	Battlesbury	35 (10)	55 (9)	1.57	43	0.78
9	Westbury White Horse	54 (15)	113 (18)	2.09	62	0.55
10	Heytesbury	4 (1)	5 (1)	1.25	4	0.8
11	Larkhill Driving Range	18 (5)	33 (5)	1.83	23	0.7
12	Lavington Vedette	37 (10)	59 (10)	1.59	32	0.54
13	Redhorn Vedette	22 (6)	45 (7)	2.05	20	0.44
14	Casterley Vedette	19 (5)	33 (5)	1.74	25	0.76
16	Tank crossing B/B1	3 (1)	4 (1)	1.33	3	0.75
17	Milston Road parking	13 (4)	17 (3)	1.31	14	0.82
18	West Everleigh Down	2 (1)	2 (0)	1	2	1
Total		363 (100)	620 (100)	1.71	462	0.75

3.24 The majority (96%) of interviewees were on a day trip/short visit and had travelled from their home on the day of the interview. A small number (2%) of interviewees were staying away from home with friends or family and a further 2% of interviewees were on holiday in the area and staying away from home in holiday accommodation. The holiday makers were interviewed at just three locations (survey point 6 Tilshead Tower; point 9 Westbury White Horse; and Point 11 Larkhill Driving Range).

Activities

- 3.25 Nearly three-quarters (74%) of interviewees stated dog walking was their main activity (Figure 3, Map 10, Table 9) and in addition there were a small number (1%) that were professional dog walkers. Other activities included walking, cycling, outing with the family and jogging. No interviews were conducted with anyone off-roading and driving a 4x4 vehicle but four interviews (1%) were with those on motorbikes/quadbikes.
- 3.26 Activities that came under the 'Other' heading included horse riding (3 interviewees), tractor road-running (1 interviewee), sightseeing (1 interviewee), sponsored walk (1 interviewee), and checking ponies (1 interviewee). There were also a further four interviewees who were undertaking more than one main activity, simultaneously jogging (or other exercise) and exercising their dog.

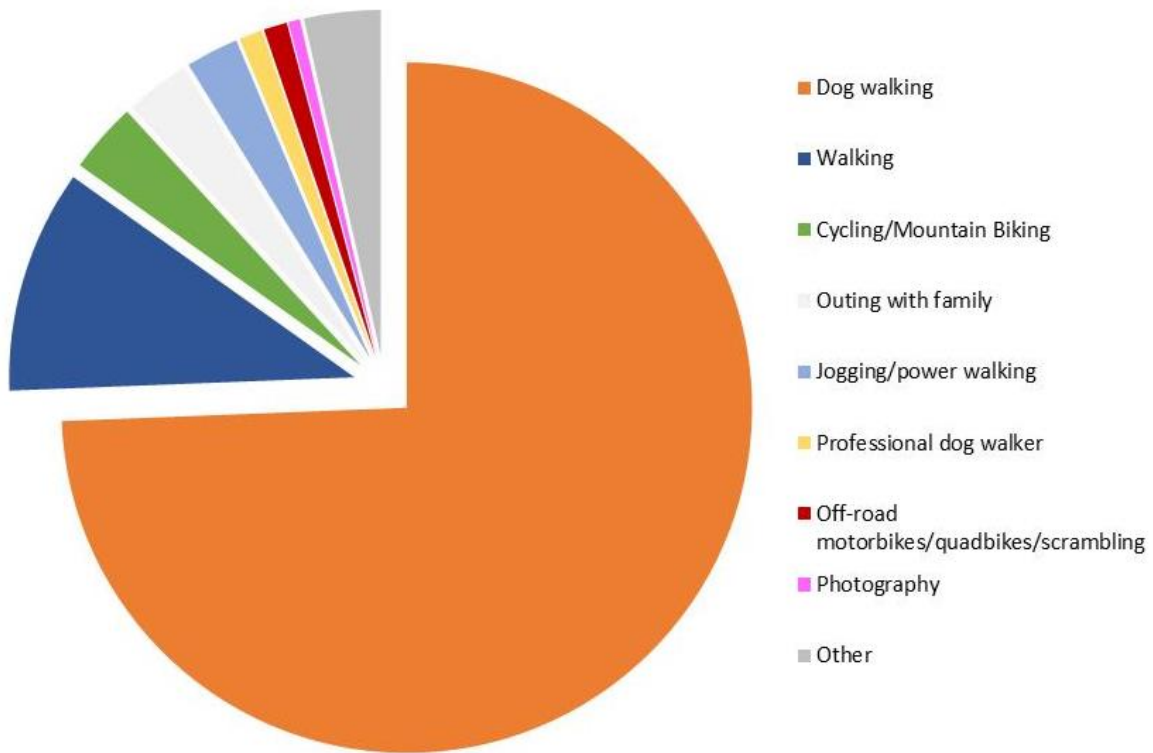


Figure 3: Proportion of interviewees undertaking different types of main activity. Data for all interviews (363) across all survey points. Data from question 2.

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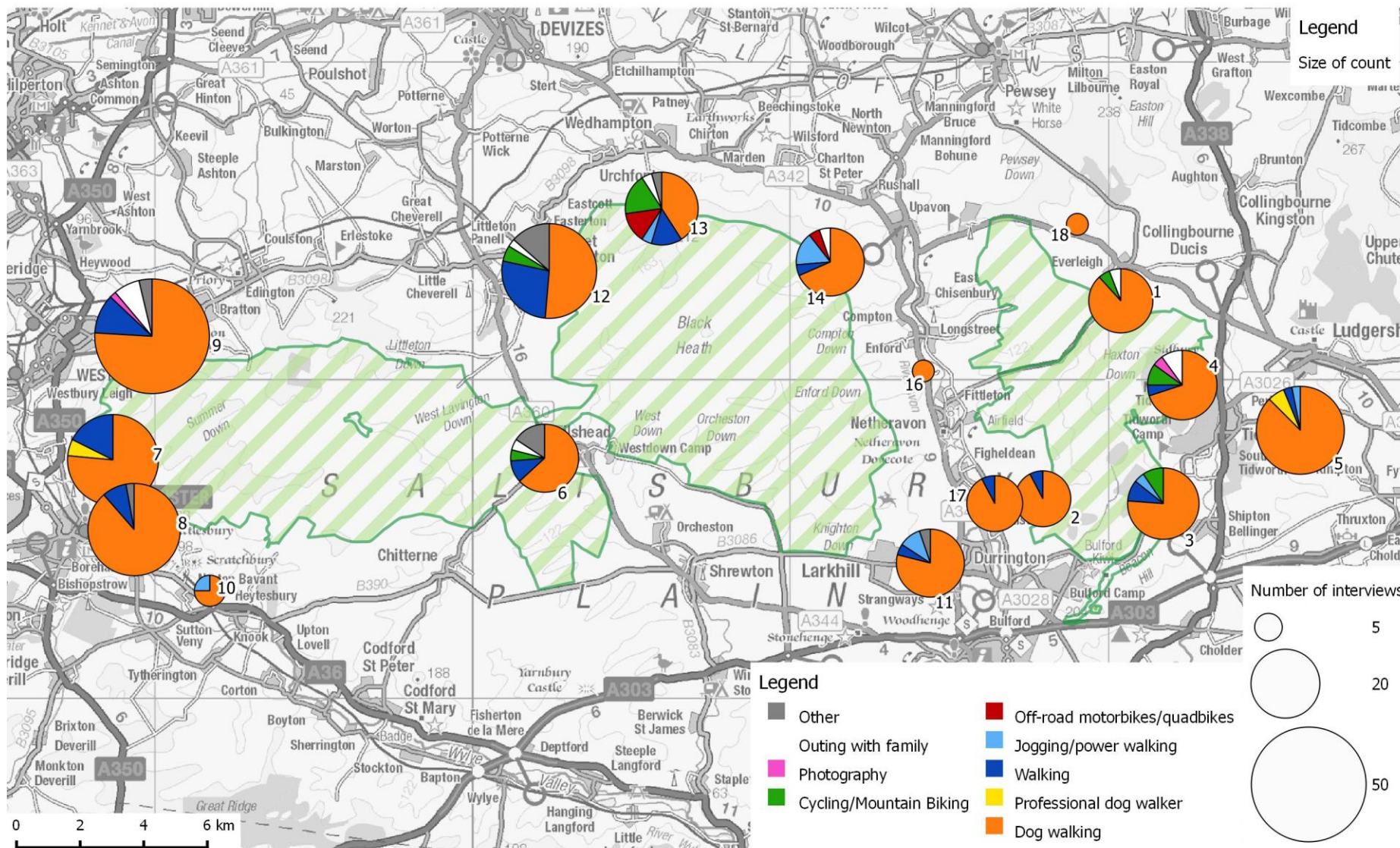
Table 9: Number (%) of interviewees by main activity and survey point. Data from question 2. Off-road bikes includes motorbikes and quadbikes.

Survey Point	Location	Dog walking	Walking	Cycling/ Mountain Biking	Outing with family	Jogging/ power walking	Professional dog walker	Off-road bikes etc	Photography	Other	Total
1	Weather Hill	15 (4)	0 (0)	1 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	17 (5)
2	Bulford Field	12 (3)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	13 (4)
3	Tidworth Belt	16 (4)	2 (1)	2 (1)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	21 (6)
4	Tidworth	14 (4)	1 (0)	2 (1)	2 (1)	0 (0)	0 (0)	0 (0)	1 (0)	0 (0)	20 (6)
5	Warren Hill	28 (8)	1 (0)	0 (0)	0 (0)	1 (0)	2 (1)	0 (0)	0 (0)	0 (0)	32 (9)
6	Tilshead Tower	12 (3)	2 (1)	1 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (1)	19 (5)
7	Elm Hill	26 (7)	6 (2)	0 (0)	0 (0)	0 (0)	2 (1)	0 (0)	0 (0)	0 (0)	34 (9)
8	Battlesbury	31 (9)	3 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)	35 (10)
9	Westbury White Horse	41 (11)	6 (2)	0 (0)	4 (1)	0 (0)	0 (0)	0 (0)	1 (0)	2 (1)	54 (15)
10	Heytesbury	3 (1)	0 (0)	0 (0)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (1)
11	Larkhill Driving Range	14 (4)	1 (0)	0 (0)	0 (0)	2 (1)	0 (0)	0 (0)	0 (0)	1 (0)	18 (5)
12	Lavington Vedette	19 (5)	10 (3)	2 (1)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (1)	37 (10)
13	Redhorn Vedette	9 (2)	3 (1)	4 (1)	1 (0)	1 (0)	0 (0)	3 (1)	0 (0)	1 (0)	22 (6)
14	Casterley Vedette	13 (4)	1 (0)	0 (0)	1 (0)	3 (1)	0 (0)	1 (0)	0 (0)	0 (0)	19 (5)

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Survey Point	Location	Dog walking	Walking	Cycling/ Mountain Biking	Outing with family	Jogging/ power walking	Profession- al dog walker	Off-road bikes etc	Photogra- phy	Other	Total
16	Tank crossing B/B1	3 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (1)
17	Milston Road parking	12 (3)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	13 (4)
18	West Everleigh Down	2 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (1)
Total		270 (74)	38 (10)	12 (3)	11 (3)	9 (2)	4 (1)	4 (1)	2 (1)	13 (4)	363 (100)

Map 10: The proportion of activities recorded from interviews at each survey location.



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Visit Length

3.27 The most frequently given category of visit length was between 30 minutes and an hour, with around half (51%) of interviewees stating this is how long their visit lasted/would last (Table 10). Around one fifth of interviewees (20%) were visiting for less than half an hour, and most of these were dog walkers. The small proportion (3%) of interviewees visiting for more than four hours were walking, cycling, or off-road biking etc.

Table 10: Number (%) interviewees by activity type and visit duration. Data from question 3. Pale grey shading reflects the highest cell value in each row.

Activity	Less than 30 minutes	30 mins - s and 1 hour	1-2 hours	2-3 hours	3-4 hours	4 hours+	Unsure	Total
Dog walking	61 (17)	147 (40)	54 (15)	6 (2)	1 (0)	0 (0)	1 (0)	270 (74)
Walking	4 (1)	12 (3)	14 (4)	3 (1)	0 (0)	4 (1)	1 (0)	38 (10)
Cycling/Mountain Biking	0 (0)	3 (1)	2 (1)	2 (1)	2 (1)	3 (1)	0 (0)	12 (3)
Outing with family	2 (1)	7 (2)	2 (1)	0 (0)	0 (0)	0 (0)	0 (0)	11 (3)
Jogging/power walking	3 (1)	5 (1)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	9 (2)
Professional dog walker	0 (0)	3 (1)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (1)
Off-road bikes etc.	0 (0)	1 (0)	0 (0)	0 (0)	1 (0)	2 (1)	0 (0)	4 (1)
Photography	1 (0)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (1)
Other	1 (0)	6 (2)	4 (1)	1 (0)	0 (0)	1 (0)	0 (0)	13 (4)
Total	72 (20)	184 (51)	79 (22)	12 (3)	4 (1)	10 (3)	2 (1)	363 (100)

Number of years visiting Salisbury Plain

3.28 Most interviewees had been visiting Salisbury Plain for an extended period, with less than 5% of interviewees on their first visit and 12% visiting for less than a year. Around half (48%) of all interviewees had been visiting Salisbury Plain for ten or more years (Table 11).

Table 11: Number (%) interviewees by activity type and number of years visiting Salisbury Plain. Data from question 4. Pale grey shading reflects the highest cell value in each row.

Activity	First visit	< 1 year	1- 3 yrs	3-5 yrs	5-10 yrs	10 yrs +	Unsure	Total
Dog walking	3 (1)	30 (8)	36 (10)	24 (7)	40 (11)	135 (37)	2 (1)	270 (74)
Walking	4 (1)	5 (1)	3 (1)	4 (1)	3 (1)	19 (5)	0 (0)	38 (10)
Cycling/Mountain Biking	0 (0)	1 (0)	1 (0)	4 (1)	1 (0)	5 (1)	0 (0)	12 (3)
Outing with family	1 (0)	2 (1)	3 (1)	4 (1)	0 (0)	1 (0)	0 (0)	11 (3)
Jogging/power walking	0 (0)	2 (1)	3 (1)	1 (0)	2 (1)	1 (0)	0 (0)	9 (2)
Professional dog walker	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (1)	0 (0)	4 (1)
Off-road bikes etc.	1 (0)	1 (0)	0 (0)	0 (0)	0 (0)	2 (1)	0 (0)	4 (1)
Photography	1 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (1)
Other	3 (1)	0 (0)	1 (0)	1 (0)	2 (1)	6 (2)	0 (0)	13 (4)
Total	13 (4)	42 (12)	47 (13)	38 (10)	48 (13)	173 (48)	2 (1)	363 (100)

Frequency of Visit

3.29 Some 39% of interviewees visited daily and a further 17% visited most days, meaning over half of interviewees visited the location where they were interviewed very regularly (Table 12). Most regular interviewees were dog walkers, with around 36% of interviewees being dog walkers who visited daily.

Table 12: Number (%) interviewees by activity type and visit frequency. Data from question 5. Pale grey shading reflects the highest cell value in each row.

Activity	Daily	Most days	1 to 3 times a week	2 to 3 times per month	Once a month	Less than once a month	First visit	Other/unsure	Total
Dog walking	132 (36)	53 (15)	53 (15)	8 (2)	8 (2)	6 (2)	3 (1)	7 (2)	270 (74)
Walking	2 (1)	4 (1)	15 (4)	2 (1)	2 (1)	9 (2)	4 (1)	0 (0)	38 (10)
Cycling/Mountain Biking	1 (0)	0 (0)	5 (1)	1 (0)	0 (0)	5 (1)	0 (0)	0 (0)	12 (3)
Outing with family	0 (0)	0 (0)	2 (1)	6 (2)	1 (0)	1 (0)	1 (0)	0 (0)	11 (3)
Jogging/power walking	1 (0)	2 (1)	5 (1)	0 (0)	0 (0)	1 (0)	0 (0)	0 (0)	9 (2)
Professional dog walker	3 (1)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (1)
Off-road bikes etc.	0 (0)	0 (0)	1 (0)	1 (0)	1 (0)	0 (0)	1 (0)	0 (0)	4 (1)
Photography	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)	1 (0)	0 (0)	2 (1)
Other	2 (1)	3 (1)	3 (1)	0 (0)	1 (0)	1 (0)	2 (1)	1 (0)	13 (4)
Total	141 (39)	62 (17)	85 (23)	18 (5)	13 (4)	24 (7)	12 (3)	8 (2)	363 (100)

3.30 Visit frequency data are summarised by survey location in Figure 4. At Warren Hill, Heytesbury, Tank Crossing B/B1 and West Everleigh Down a relatively high proportion of interviewees (at least two-thirds) were daily visitors. Westbury White Horse was the interview location where the highest number of daily visitors was interviewed (30 interviewees).

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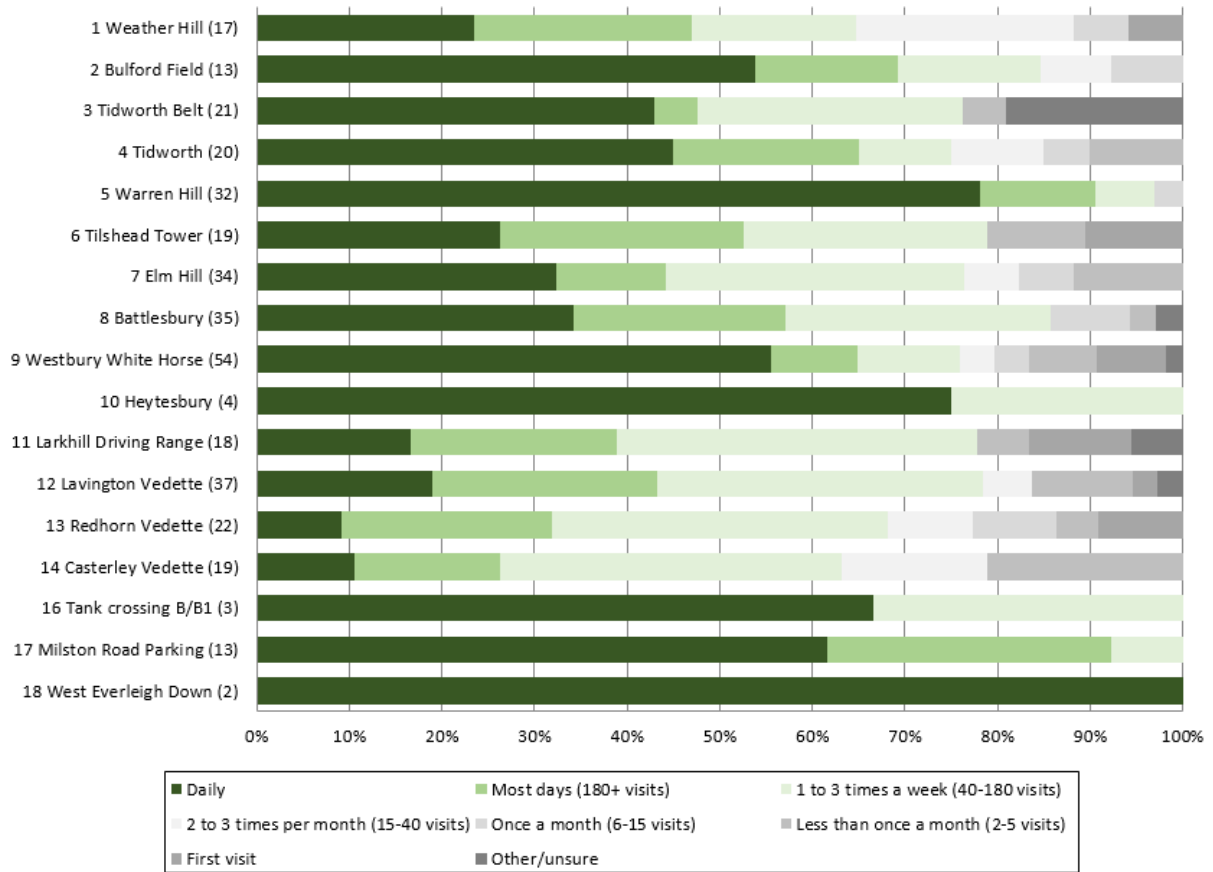


Figure 4: Percentage of interviewees and visit frequency by survey point; data from question 5. The numbers in brackets relate to the number of interviews at each location.

Time of Day

3.31 Around a third (29%) of interviewees didn't tend to visit at any particular time of day; for those who did tend to visit at a particular time of day early morning (34% interviewees) and evening (28% of interviewees) were favoured (Table 13). Perhaps not surprisingly, 88% of the interviewees who tended to visit in the early morning were dog walkers.

Table 13: Number (%) of interviewees visiting and time of day tend to visit, from question 6. Interviewees could give multiple responses (e.g. potentially tending to visit in both the morning and evening). Percentages based on total number of interviews rather than responses.

Time of year	Interviewees (%)
Early morning (before 9am)	123 (34)
Late morning (between 9am and 12 noon)	64 (18)
Early afternoon (between 12 noon and 2pm)	56 (15)
Late afternoon (between 2pm and 4pm)	49 (13)
Evening (after 4pm)	103 (28)
Varies / Don't know / First visit	106 (29)

Time of year

3.32 Most (87%) of interviewees tended to visit equally all year round, suggesting those interviewed varied their visit patterns relatively little through the year (Table 14). Very few (1%) interviewees tended to visit more in the winter.

Table 14: Number (%) of interviewees visiting and time of year they tend to visit, from question 7. Interviewees could give multiple responses (e.g. potentially tending to visit in spring and summer). Percentages based on total number of interviews rather than responses.

Time of year	Interviewees (%)
Spring (Mar-May)	15 (4)
Summer (Jun-Aug)	21 (6)
Autumn (Sept-Nov)	15 (4)
Winter (Dec-Feb)	2 (1)
Equally all year	314 (87)
Don't know / First visit	26 (7)

Mode of Transport

3.33 The majority (81%) of interviewees had arrived at the survey point by car (Table 15) and survey point 18 (West Everleigh Down) was the only location where no interviewees had arrived by car. Virtually all survey points had at least one interviewee who had arrived on foot (survey point 9, Westbury White Horse was the one exception). Notably survey point 4 (Tidworth) had a relatively high number of interviewees who arrived on foot, and more people were interviewed here who had arrived on foot than by car. It was the only survey point where more than 10 people had arrived on foot.

Table 15: Number (%) of interviewees according to mode of transport and survey point. Data from question 8. Pale grey shading reflects the highest total in each row.

Survey Point	Location	Car / van	On foot	Bicycle	Other	Total
1	Weather Hill	15 (4)	1 (0)	1 (0)	0 (0)	17 (5)
2	Bulford Field	12 (3)	1 (0)	0 (0)	0 (0)	13 (4)
3	Tidworth Belt	18 (5)	1 (0)	2 (1)	0 (0)	21 (6)
4	Tidworth	7 (2)	12 (3)	1 (0)	0 (0)	20 (6)
5	Warren Hill	25 (7)	6 (2)	0 (0)	1 (0)	32 (9)
6	Tilshead Tower	17 (5)	1 (0)	1 (0)	0 (0)	19 (5)
7	Elm Hill	32 (9)	2 (1)	0 (0)	0 (0)	34 (9)
8	Battlesbury	33 (9)	1 (0)	0 (0)	1 (0)	35 (10)
9	Westbury White Horse	54 (15)	0 (0)	0 (0)	0 (0)	54 (15)
10	Heytesbury	2 (1)	2 (1)	0 (0)	0 (0)	4 (1)
11	Larkhill Driving Range	13 (4)	4 (1)	0 (0)	1 (0)	18 (5)
12	Lavington Vedette	25 (7)	9 (2)	2 (1)	1 (0)	37 (10)
13	Redhorn Vedette	17 (5)	1 (0)	2 (1)	2 (1)	22 (6)
14	Casterley Vedette	13 (4)	4 (1)	0 (0)	2 (1)	19 (5)
16	Tank crossing B/B1	1 (0)	2 (1)	0 (0)	0 (0)	3 (1)
17	Milston Road parking	10 (3)	3 (1)	0 (0)	0 (0)	13 (4)
18	West Everleigh Down	0 (0)	2 (1)	0 (0)	0 (0)	2 (1)
Total		294 (81)	52 (14)	9 (2)	7 (2)	363 (100)

Reasons for choice of site

3.34 There were a range of reasons that underpinned why interviewees had chosen to visit Salisbury Plain as their destination on the day when interviewed, rather another local site (Figure 5). Responses to the answer were categorised by the survey, based on pre-determined categories that reflected likely responses (based on other visitor surveys conducted by Footprint Ecology). ‘Scenery /variety of views’ (54% of interviewees) and ‘close to home’ (39% interviewees) were clearly particularly important and the two most common responses.

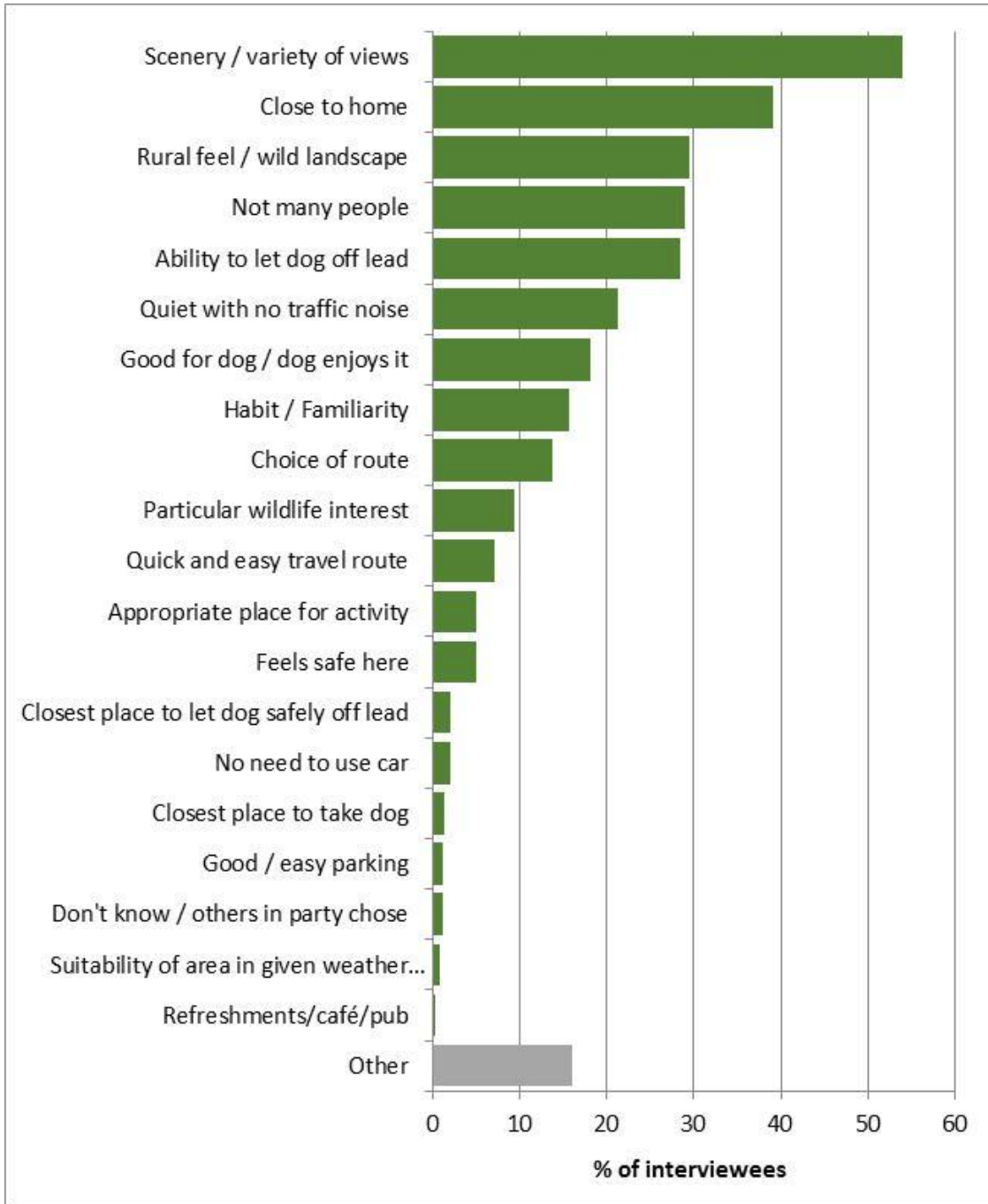


Figure 5: Reasons for site choice, from question 11.

3.35 There was a wide range of other reasons and further detail in addition to the simple categories. This additional detail is captured in the word cloud in Figure 6. The cloud is based on phrases rather than individual words, so that larger text reflects interviewees who used the same series of words rather than the same individual words. It can be seen that the openness of the Plain come across very strongly and is clearly important for many.

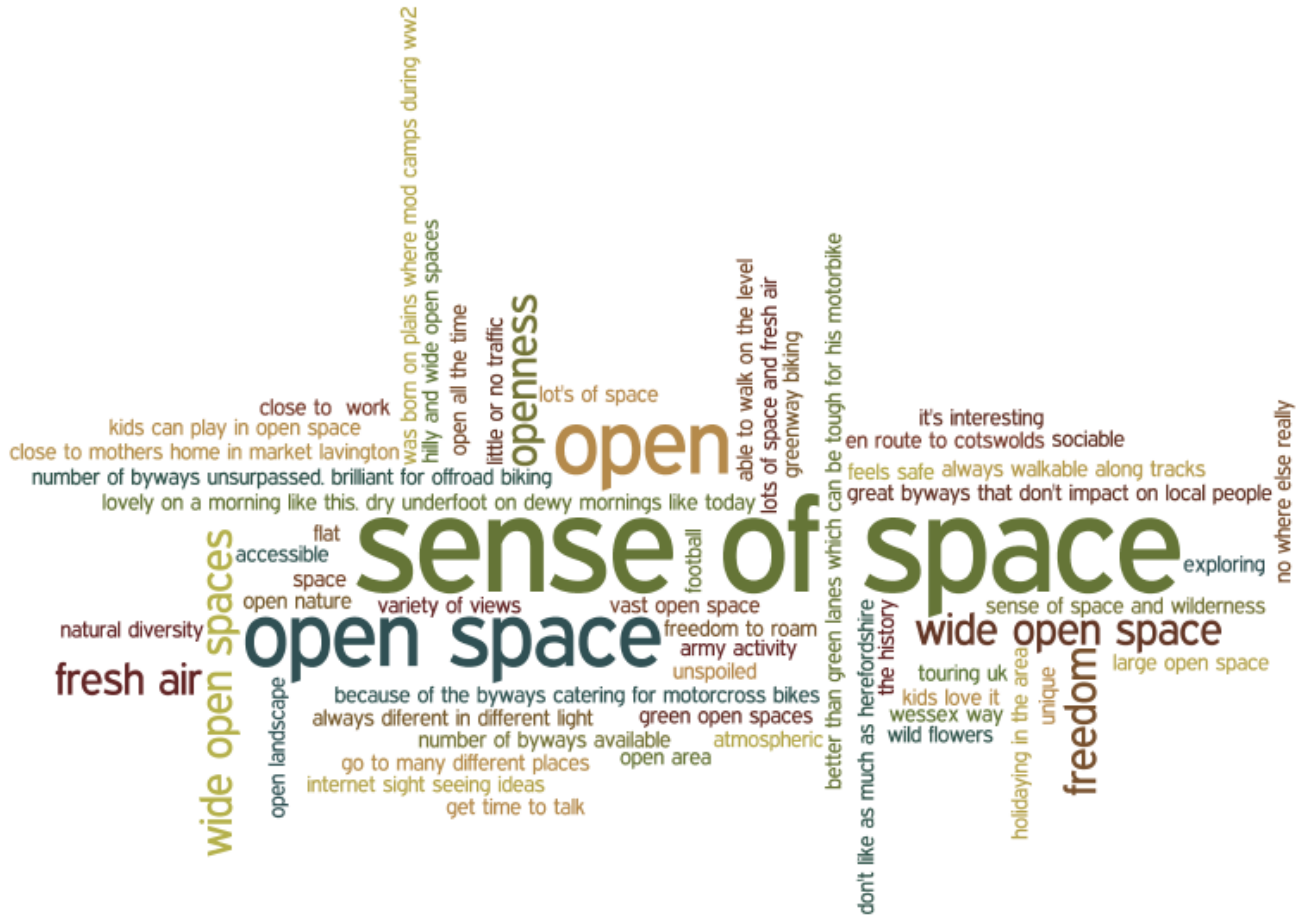


Figure 6: Word cloud giving further details relating to the reasons behind interviewees’ site choice and in particular their reasons for choosing Salisbury Plain rather than another local site (question 11). Cloud is built using the exact phrases given rather than individual words.

- 3.36 There was some variation between survey points, with locations 5, 6, 9 and 12 standing out as having different proportions of responses behind site choice. At survey point 5 (Warren Hill) there were 120 responses, and of these a relatively low proportion indicated ‘close to home’ (4 responses) as important and by contrast ‘rural feel/wild landscape’ (26 responses) and ‘good for dog / dog enjoys it’ (18 responses) featured strongly. At location 6 (Tilshead Tower), ‘scenery / variety of views’ was not recorded as much as expected (6 out of 88 responses) but ‘choice of routes’ (11 responses) and ‘not many people’ (15 responses) were more frequent than expected.
- 3.37 ‘Close to home’ and ‘scenery / variety of views’ featured particularly at location 9 Westbury White Horse (28 and 24 responses respectively out of 90) however ‘not many people’ featured less than expected (0 responses). At location 12 (Lavington Vedette) ‘close to home’ (13 responses out of 173) and good for dog / dog enjoys it’ (0 responses) were both recorded less than expected and ‘habit / familiarity’ (21 responses), ‘not many people’ (24 responses) and ‘choice of routes’ (15 responses) were recorded more than expected.

3.38 While question 11 explored general reasons for choosing Salisbury Plain as opposed to other locations, Question 12 then explored why interviewees had chosen the particular location where interviewed within the Plain, as opposed to another part of Salisbury Plain. Responses were similar to question 11, however 'close to home' was the most commonly given response (49% of interviewees) with 'scenery/variety of views' the second most common response (40% interviewees).

3.39 Responses are given in Table 16, with the factors ranked according to frequency. The shading reflects individual cells with higher numbers of responses than expected (dark grey) or lower numbers than expected (pale grey). Combinations of locations and factors that featured more frequently than expected included:

- Survey point 1 (Weather Hill): 'ability to let dog off lead'; 'rural feel/wild landscape'; 'particular wildlife interest'
- Survey point 3 (Tidworth Belt): 'good for dog/dog enjoys it'; 'rural feel/wild landscape'
- Survey point 4 (Tidworth): 'close to home'
- Survey point 5 (Warren Hill): 'scenery/variety of views'; 'good for dog/dog enjoys it'; 'rural feel/wild landscape'
- Survey point 6 (Tilshead Tower): 'ability to let dog off lead'
- Survey point 7 (Elm Hill): 'good for dog/dog enjoys it'
- Survey point 8 (Battlesbury): 'close to home'; 'scenery/variety of views'
- Survey point 9 (Westbury White Horse): 'close to home'; 'scenery/variety of views'
- Survey point 11 (Larkhill Driving Range): 'close to home'
- Survey point 12 (Lavington Vedette): 'Not many people'; 'habitat/familiarity'
- Survey point 17 (Milston Road Parking): 'Close to home'

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Table 16: Responses to question 12, why did you specifically choose to visit this location today rather than somewhere else within the Plain, by site. Table gives the observed number of responses alongside the expected (calculated from row and column totals) which is in brackets. Dark grey shading reflects cells with an observed value more than 4 higher than expected, pale grey shading reflects observed value at least 4 lower than expected.

Reason	Survey Point																	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	17	18	
Close to home	2 (8)	3 (4)	6 (11)	17 (7)	9 (18)	3 (13)	16 (12)	18 (12)	33 (18)	2 (1)	11 (7)	25 (31)	10 (14)	10 (16)	2 (1)	10 (6)	2 (1)	179
Scenery / variety of views	5 (6)	5 (3)	10 (9)	4 (6)	18 (14)	3 (11)	13 (10)	16 (10)	25 (14)	1 (1)	1 (6)	16 (25)	7 (11)	13 (13)	0 (0)	7 (5)	0 (0)	144
Ability to let dog off lead	10 (4)	3 (2)	4 (6)	1 (4)	12 (10)	12 (7)	2 (7)	2 (7)	7 (10)	0 (1)	3 (4)	20 (17)	7 (8)	12 (9)	0 (0)	4 (3)	0 (0)	99
Not many people	0 (3)	1 (2)	7 (5)	1 (3)	5 (7)	8 (5)	2 (5)	1 (5)	0 (7)	1 (1)	4 (3)	21 (13)	9 (6)	13 (7)	0 (0)	2 (2)	0 (0)	75
Good for dog / dog enjoys it	5 (3)	3 (2)	9 (4)	4 (3)	15 (7)	1 (5)	15 (5)	4 (5)	6 (7)	2 (1)	2 (3)	0 (12)	1 (5)	3 (6)	0 (0)	2 (2)	0 (0)	72
Rural feel / wild landscape	10 (3)	3 (1)	10 (4)	2 (3)	19 (6)	6 (5)	2 (4)	1 (4)	4 (6)	0 (1)	0 (3)	3 (11)	2 (5)	2 (6)	0 (0)	1 (2)	0 (0)	65
Quiet with no traffic noise	1 (2)	0 (1)	2 (3)	4 (2)	2 (5)	0 (4)	5 (3)	5 (3)	3 (5)	1 (0)	5 (2)	11 (8)	4 (4)	5 (4)	0 (0)	1 (2)	0 (0)	49
Habit / Familiarity	2 (2)	0 (1)	1 (3)	0 (2)	2 (4)	8 (3)	1 (3)	0 (3)	0 (4)	0 (0)	0 (2)	23 (7)	4 (3)	2 (4)	0 (0)	0 (1)	0 (0)	43
Choice of route	0 (2)	0 (1)	3 (3)	1 (2)	2 (4)	8 (3)	1 (3)	5 (3)	1 (4)	0 (0)	1 (2)	10 (7)	6 (3)	4 (4)	0 (0)	0 (1)	0 (0)	42
Quick and easy travel route	1 (2)	0 (1)	3 (2)	1 (1)	1 (4)	8 (3)	0 (2)	2 (2)	0 (4)	0 (0)	2 (2)	7 (6)	6 (3)	6 (3)	0 (0)	0 (1)	0 (0)	37
Particular wildlife interest	6 (1)	1 (0)	1 (1)	1 (1)	4 (2)	0 (2)	0 (1)	1 (1)	0 (2)	0 (0)	0 (1)	4 (4)	1 (2)	2 (2)	0 (0)	0 (1)	0 (0)	21
Good / easy parking	0 (1)	0 (0)	1 (1)	0 (1)	2 (2)	2 (1)	3 (1)	2 (1)	5 (2)	0 (0)	4 (1)	1 (3)	0 (2)	0 (2)	0 (0)	0 (1)	0 (0)	20
Appropriate place for activity	1 (1)	0 (0)	2 (1)	0 (1)	4 (2)	2 (1)	0 (1)	0 (1)	0 (2)	0 (0)	0 (1)	6 (3)	2 (1)	2 (2)	0 (0)	0 (1)	0 (0)	19
Feels safe here	0 (1)	0 (0)	1 (1)	0 (1)	1 (2)	0 (1)	4 (1)	1 (1)	1 (2)	0 (0)	1 (1)	4 (3)	0 (1)	1 (1)	0 (0)	2 (1)	0 (0)	16
No need to use car	0 (0)	1 (0)	0 (1)	0 (0)	1 (1)	0 (1)	0 (1)	0 (1)	0 (1)	1 (0)	0 (0)	3 (2)	0 (1)	3 (1)	0 (0)	0 (0)	0 (0)	9
Closest place to let dog safely off lead	0 (0)	0 (0)	0 (0)	0 (0)	0 (1)	1 (0)	0 (0)	2 (0)	0 (1)	0 (0)	0 (0)	1 (1)	1 (0)	1 (1)	0 (0)	0 (0)	0 (0)	6
Closest place to take dog	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (1)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)	3
Suitability of area in given weather conditions	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (1)	3 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3
Don't know / others in party chose	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2
Avoiding military activity	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1
Refreshments/café/pub	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0
Other	0 (3)	0 (1)	0 (4)	3 (3)	0 (7)	9 (5)	1 (4)	5 (4)	9 (7)	0 (1)	6 (3)	10 (11)	11 (5)	7 (6)	1 (0)	3 (2)	1 (0)	66
Total	43	21	60	39	97	71	65	65	96	8	40	167	74	87	3	32	3	971

Alternative sites

- 3.40 The majority (86%) of interviewees named at least one alternative site that they visited (question 13-15; interviewees were asked to name up to three locations, listed in order starting with the one they visited most).

- 3.41 Data are summarised in Figure 7. In order to generate the figure we removed all vague text such as ‘around’, ‘near’ or ‘in the region of’ and standardised some names which were clearly the same destination (e.g. ‘White Horse at Alton’, ‘Alton Barnes Horse’ or other such variants). Where there was any doubt original names were retained, i.e. Pewsey Downs and Alton Barnes White Horse were assumed to be different.

- 3.42 It is clear interviewees visit a wide range of locations, including ones on the Plain and further afield.



Figure 7: Word Cloud showing named alternative sites visited by interviewees. Up to three sites could be named, in total 663 responses were used to generate the figure.

Awareness of nature conservation importance

3.43 Question 16 asked whether the interviewee was aware of any nature conservation designations or environmental protection that applies to Salisbury Plain. Overall, 31% of interviewees responded that they were aware of a designation and 50% indicated they were not aware, with 19% unsure.

3.44 There were some differences apparent between survey points (Figure 8) and some differences between activity types (Figure 9). There were three survey points where more than 50% of interviewees were aware of designations/environmental protection and these were survey point 1 (Weather Hill), survey point 17 (Milston Road Parking) and survey point 2 (Bulford Field). With different activity types professional dog walkers were the one activity type where no interviewees indicated they were aware of any designation/environmental protection (but note the small sample size for this group).

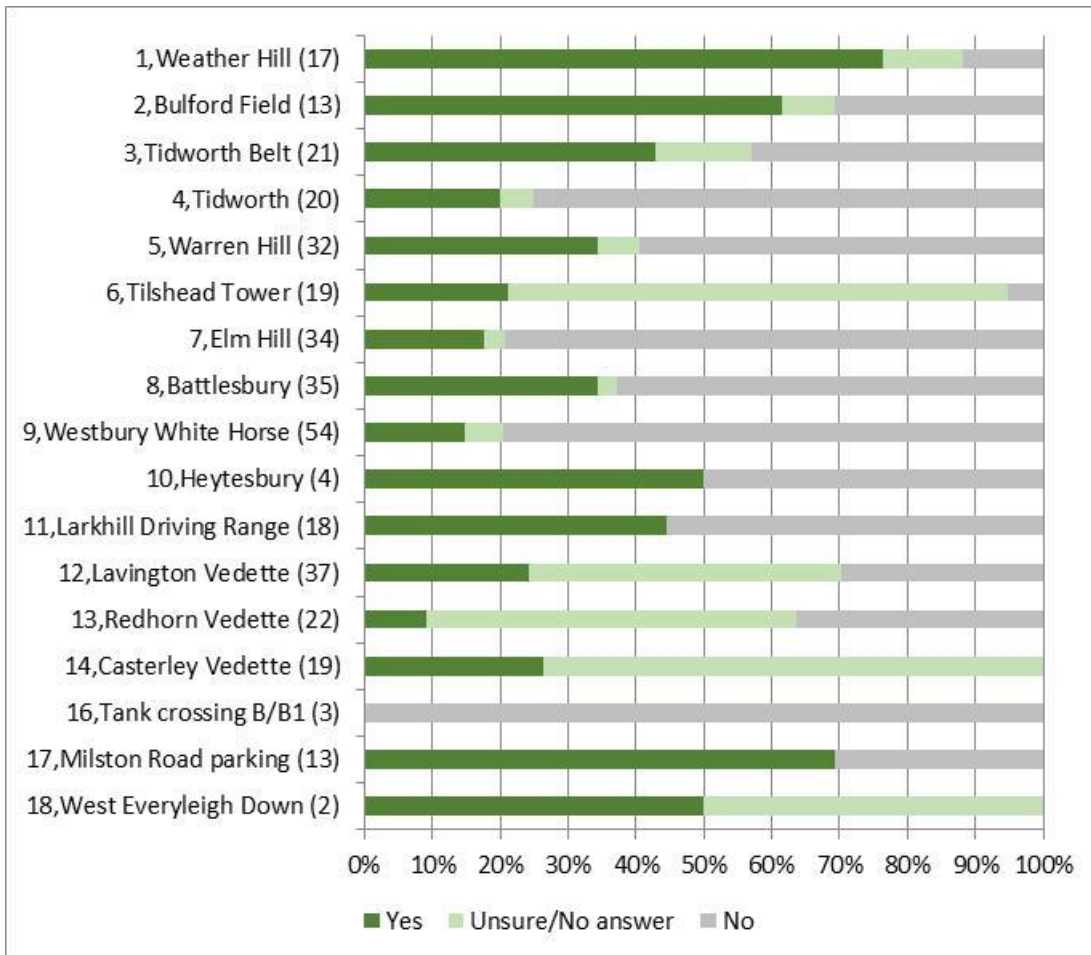


Figure 8: Responses to question 16; awareness of nature conservation designations/environmental protection by survey point. Number of interviews shown in brackets.

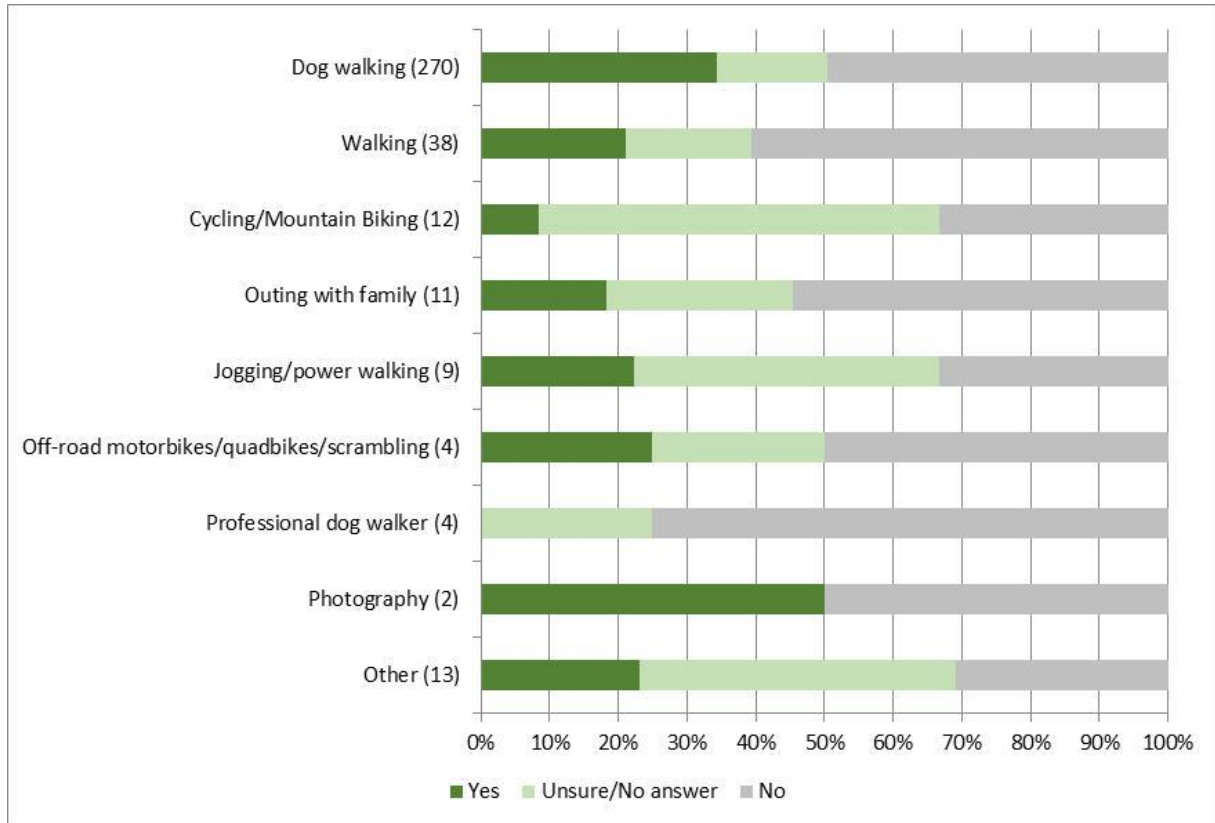


Figure 9: Responses to question 16; awareness of nature conservation designations/environmental protection by main activity. Number of interviews shown in brackets.

3.45 Interviewees who answered that they were aware of a designation/environmental protection in question 16, were then asked in question 17 if they could name that designation. Only one interviewee was able to mention a designation of European importance (see Table 17), rather more (14% of those who answered yes to question 16) indicated they know it is a SSSI and the most responses were general comments relating to birds (50% of those who answered yes) or habitat/non-avian interest (46% of those who answered yes).

Table 17: Designations named by those who indicated they were aware of a designation/environmental protection (question 17). Table gives number (%) interviewees. Percentages are based on the overall total of 111 interviewees who stated that they were aware of a designation/environmental protection.

Name	Number (%)
SPA/SAC/RAMSAR mentioned (including "Special Protection Area" or "Special Area of Conservation)	1 (1)
SSSI mentioned (or "Special Scientific Interest" type wording)	15 (14)
AONB ("Area Outstanding Natural Beauty")	9 (8)
General comment that important for birds	55 (50)
General comment that important for habitat/non-avian interest	51 (46)
None of the above mentioned	26 (23)

Visitor Origins (postcodes)

- 3.46 From the 363 interviewees we recorded 348 postcodes, of which 340 were complete, valid georeferenced locations. The distribution of these postcodes is shown in Map 11.
- 3.47 Those interviewees on holiday or visiting friends made up a very small number of these postcodes and were generally excluded from analysis. The distance between their home postcode and the survey location was usually much greater than for those visiting directly from home. For interviewees visiting from home (336 postcodes), half of these interviewees' home postcodes were within a 2.9 km radius of the survey point at which they were interviewed (Table 18). In comparison, this value was much smaller than those interviewees who described their visit as a short trip staying with friends/family (median linear distance, 75.9 km; number of interviewees= 4), those working in the area (8.2 km; 2 interviewees) and those on holiday (106.9 km; 4 interviewees).
- 3.48 Differences between survey points were evident, as shown in Table 18. The values for third quartiles are shown in map 12 as buffers around survey points and as such show the radius around each survey point which encompasses the home postcodes of the nearest 75% of the interviewees to the survey point.
- 3.49 Large linear distances between the survey points and the interviewees' home postcode were recorded at 1, 5, 6 and 14. This suggests these sites have a large draw to many visitors, but also these survey points were often further from towns, further into the sites or attracted activities for which people had travelled further (e.g. cycling). Survey point 5 was expected to be dominated by visitors from the immediately adjacent town of Pernham Down, however a large proportion of visitors were travelling from Andover and areas in between.
- 3.50 Small distances were often recorded at particularly quiet locations, such as locations 16 and 18. It is harder to understand the true use at sites with small sample sizes, although at location 18, Lower Everleigh, the very local user group appears indicative. Other sites were much busier but still had a relatively local visitor profile, such as survey points 4, 11, and 17. At these locations, the vast majority of interviewees (75% of interviewees) lived within a 2 km radius of the survey point. At survey point 4, the majority of interviewees were from North Tidworth, while at location 11, interviewees were mostly from Durrington.

Table 18: Average, median and third quartile of the linear distance from interviewees' home postcode to the survey point. Using only interviewees who described their visit as a short trip from home.

Survey point	Number of postcodes	Average linear distance to survey point (km)	Median (50% of interviewees) linear distance to survey point (km)	Third quartile (75% of interviewees) linear distance to survey point (km)
1	17	13.5	5.0	11.0
2	13	5.5	3.1	5.8
3	21	16.1	4.7	7.0
4	17	6.9	1.1	1.4
5	32	5.0	3.0	9.3
6	16	6.7	5.9	8.9
7	34	5.0	3.3	4.0
8	33	3.3	2.7	3.1
9	44	9.7	3.1	4.8
10	4	2.8	3.4	3.6
11	15	2.6	1.2	1.8
12	36	4.1	1.7	4.0
13	21	11.0	6.6	8.0
14	19	8.7	2.9	10.0
15	0	-	-	-
16	1	1.0	1.0	1.0
17	11	14.7	1.6	1.9
18	2	0.2	0.2	1.6
Total	336	7.4	2.9	6.4

3.51 Interviewees who described their visit as from home were categorised into the settlement they were travelling from. The list of settlements recorded in Wiltshire is shown in Table 19 and for settlement with more than one interviewee outside Wiltshire in Table 20. Settlements with interviews conducted with more than one in 100 of all residents were at; Perham Down (3.4% of residents interviewed), Upavon (3.2), Westbury (2.5) and Market Lavington (2.1). The percentage of residents interviewed at these settlements were much higher than many other towns and villages. These areas are all less than 4km to the SPA and often even closer to access points. Although there are other settlements equally close to the SPA which recorded lower percentages of interviews, such as Amesbury. However, comparing this directly to other settlements adjacent to the plain is influenced by the position and number of survey points in relation to the settlement.

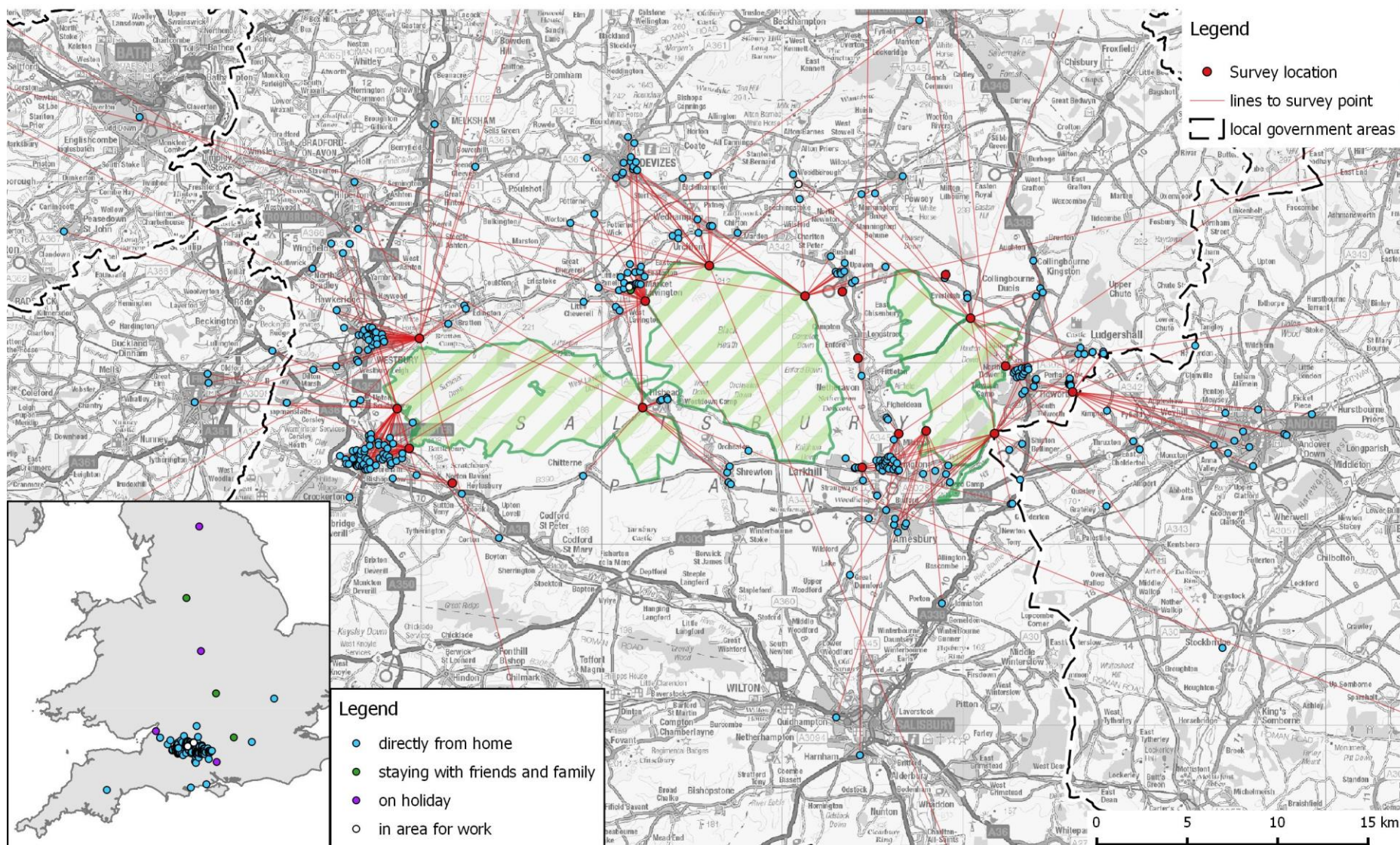
Table 19: The origin of interviewees at all survey locations, categorised by all settlements within Wiltshire. For individual settlements the linear distance from the centre of the settlement to the SPA (km) is shown.

Name	Number of interviewees	Number of residential properties	Percentage of residents interviewed	Settlement distance to SPA (km)
Warminster	53	7,444	0.712	0.5
Westbury	30	6,290	0.477	2.2
Durrington/Bulford	24	3,356	0.715	0.1
Tidworth	20	2,491	0.803	1.0
Market Lavington	17	804	2.114	1.2
Devizes	11	8,034	0.137	6.6
Perham Down	10	293	3.413	3.1
Upavon	7	222	3.153	2.5
Ludgershall	7	1902	0.368	3.4
Amesbury	6	3698	0.162	2.5
Trowbridge	5	16,075	0.031	6.0
Larkhill	4	606	0.660	0.8
Shrewton	4	740	0.541	2.8
Urchfont	3	357	0.840	1.6
Collingbourne Ducis	3	366	0.820	2.5
Edington	2	302	0.662	2.4
Chapmanslade	2	265	0.755	5.6
Warminster	2	456	0.439	0.5
Salisbury	2	20,000	0.010	12.7
Swindon	1	73,532	0.001	30.4
Derry Hill/Studley	1	380	0.263	17.3
Marlborough	1	3,428	0.029	14.1
Melksham	1	6,773	0.015	13.1
Pewsey	1	1,586	0.063	5.0
Potterne	1	531	0.188	5.3
Collingbourne Kingston	1	154	0.649	4.2
Southwick	1	779	0.128	7.1
Upavon Airfield	1	172	0.581	0.8
Littleton Panell	1	360	0.278	2.4
Westbury	1	40	2.500	2.2
Bratton	1	509	0.196	1.8
Netheravon	1	444	0.225	1.2
Durrington/Bulford	1	141	0.709	0.1
Strangways	1	147	0.680	2.3
Heytesbury	1	252	0.397	2.4
Porton	1	351	0.285	5.6
Rural areas (outside built up areas)	69	47,326	0.146	-

Table 20: Originating settlements of interviewees from outside Wiltshire, with more than one interviewee. For each settlement the linear distance from the centre of the settlement to the SPA (km) is shown.

Name	Number of interviewees from	Number of residential properties	Percentage of residents interviewed	Settlement distance to SPA (km)
Andover (Hampshire)	9	16,982	0.053	13.7
Frome (Somerset)	4	11,375	0.035	10.1
Bristol	3	204,672	0.001	37.5
Shipton Bellinger (Hampshire)	2	584	0.342	1.1

Map 11: Home postcodes of interviewees within the context of the UK and within the immediate area, categorised by the visit type.



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Map 12: The areas covered by a radius around each survey points to encompass 75% of interviewees to the survey point.



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Routes

- 3.52 As part of the interviews respondents were asked to show the route they had taken across the site. These routes are shown in Map 13 for each survey location. Summary statistics for the length of routes are shown in Table 21. These differences in route length were significant both between survey points (Kruskal-Wallis; $H=134.8$, $df=16$, $p<0.001$), Table 21, and activities ($H=79.4$, $df=8$, $p<0.001$), Table 22.
- 3.53 The distribution of routes in certain locations, particularly in the western edge of the Plain, shows access to be concentrated along particular routes. The routes as previously shown in Map 13 are expressed as densities (interviewees per 200m cell) and are shown in Map 14. The lack of many paths and byways onto the Plain in the western area clearly limits access and results in short routes of around 3 km. Furthermore, there were no cyclists or off-roaders interviewed to increase route lengths. In contrast, the eastern Plain which has a much higher level of open access shows very irregular and diffuse routes. In this area route length is also typically around 3 or 4km, and included a number of runners and cyclists. Routes on the central plain are much more restricted to the long distance byways, often without regular access points. As such routes are often longer. In addition the activities recorded are often those of longer distances, such as cycling and off-road scrambling. As a result these visitors often cover more of the central plain. For example, even some long-distance walkers and runners were noted to cover the entire length of the central plain.

Table 21: The median and average route length of interviewees by survey point.

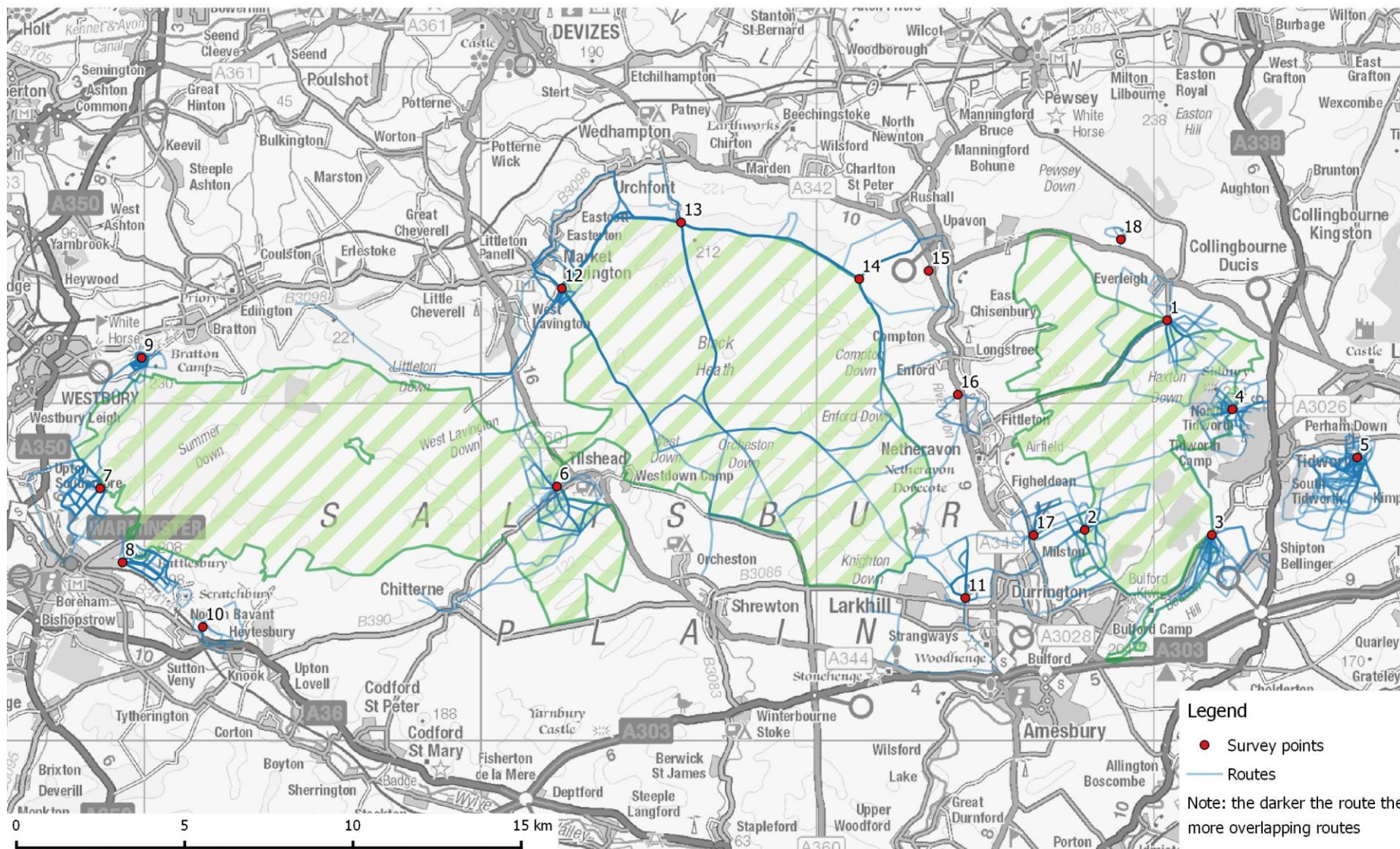
Survey point	Number of interviews	Average route length (km)	Median route length (km)	Maximum route length (km)
East Plain				
1	17	4.3	3.6	10.6
2	13	4.5	4.6	10.1
3	21	3.9	2.6	22.0
4	20	2.6	2.6	5.0
5	32	3.8	3.6	8.5
17	13	2.5	2.6	5.0
18	2	1.6	1.6	1.9
Central Plain				
11	18	3.5	2.4	13.1
12	37	4.7	3.2	27.7
13	22	10.2	6.7	31.9
14	19	6.8	4.4	27.5
15	0	-	-	-
16	3	3.0	3.9	4.5
West Plain				
6	19	4.9	3.7	20.0
7	34	3.9	3.4	14.2
8	35	3.0	2.7	7.4
9	54	1.0	0.9	4.2
10	4	3.1	3.0	4.2
Total	363	3.9	3.0	31.9

Table 22: The median and average route length of interviewees by activity.

Activity	Number of interviews	Average route length (km)	Median route length (km)	Maximum route length (km)
Dog walking (not professionally)	270	3.0	2.6	26.4
Walking	38	5.0	4.1	27.7
Other	13	5.6	4.5	16.3
Cycling/Mountain Biking	12	14.0	13.4	31.9
Outing with family	11	1.6	0.9	20.0
Jogging/power walking	9	7.4	6.4	3.6
Off-road motorbikes/quadbikes	4	22.1	22.9	1.8
Professional dog walker	4	3.1	3.2	4.4
Photography	2	1.1	1.1	22.7
Total	363	3.9	3.0	31.9

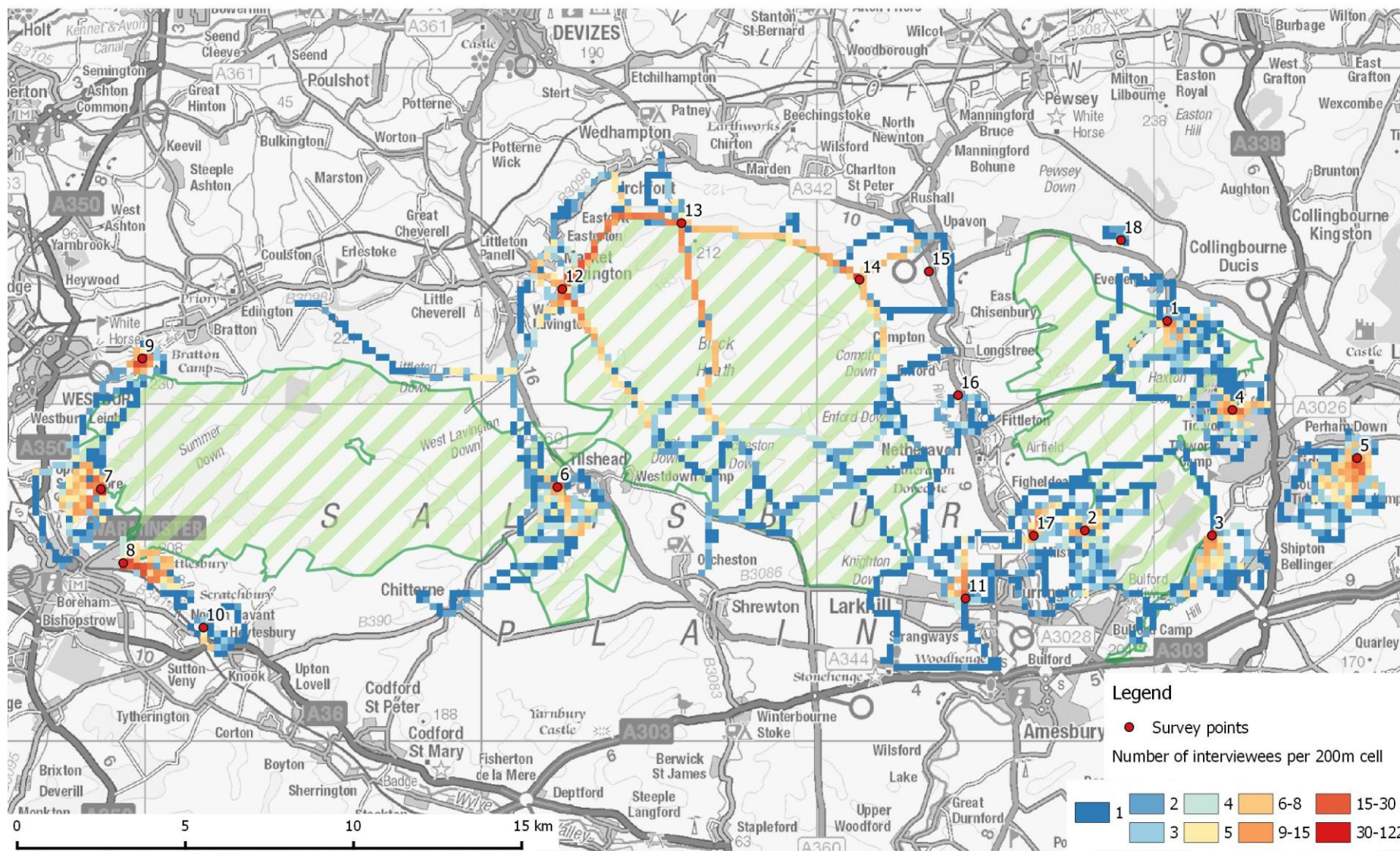
- 3.54 Most interviewees (70%), thought their routes recorded were fairly typical of their usual route length. Approximately 11% suggested that it was shorter than usual, and just under 3% thought it was longer.
- 3.55 Factors which were important in determining their choice of route were mainly previous knowledge of the area (33% of interviewees), but also weather (17%), usually in a negative context of shortening their route and daylight (13%). MOD activities or other recreational activities were largely not a factor in influencing route choice, with only 8% and 1% respectively mentioning it as a factor. Only 1 interviewee mentioned signs or interpretation as having had an influence on their route choice.

Map 13: Routes recorded from interviews across Salisbury Plain.



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Map 14: Density of routes recorded from interviews across Salisbury Plain summarised as 200 m cells.



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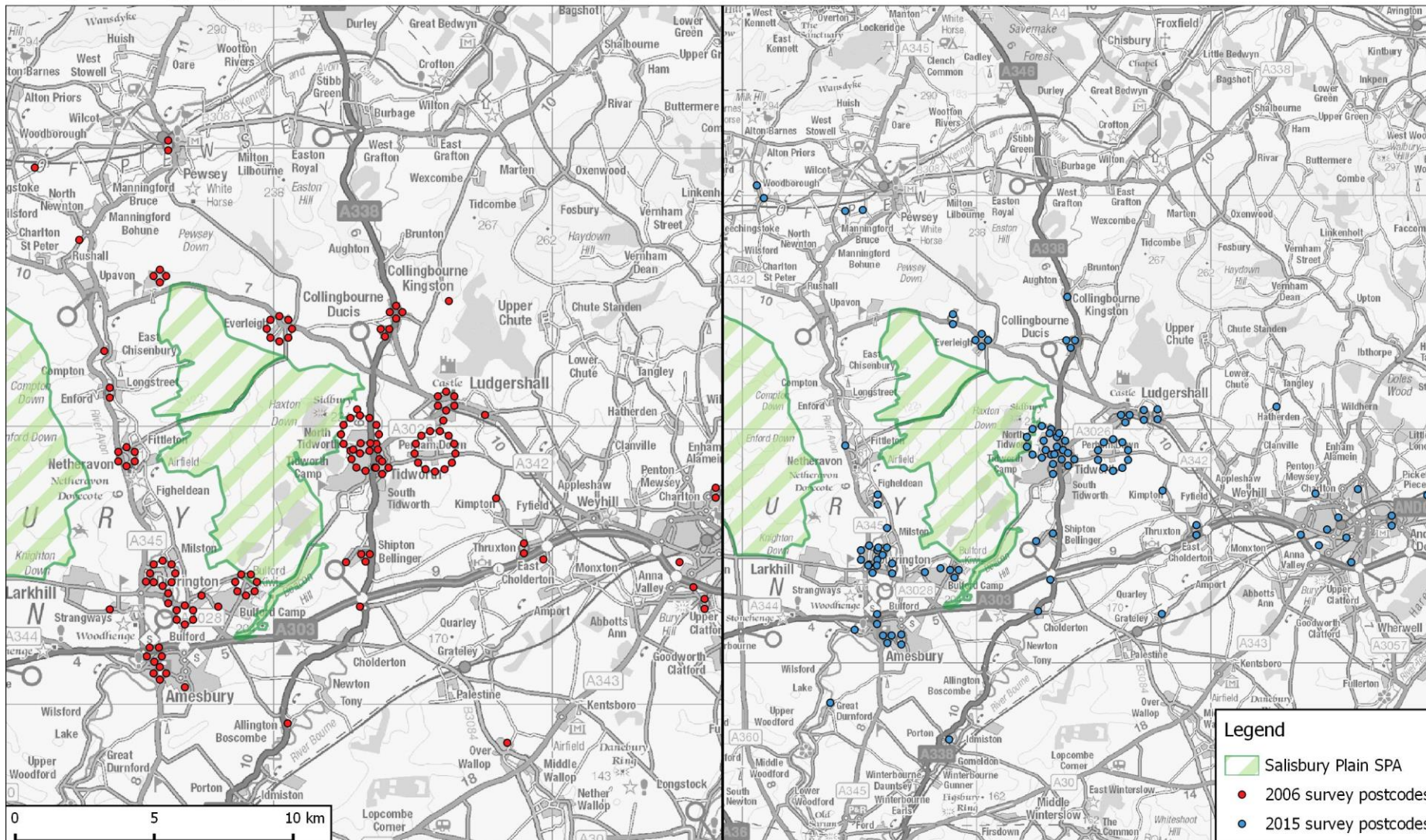
4. Comparison with previous survey

- 4.1 The previous survey in 2006 (Liley, Payne & Peat 2007) was focussed on the eastern plain and was commissioned to inform an assessment of the potential impacts of a new track. The results of that survey indicated relatively low levels of access but dispersed over a wide area, and highlighted how recreational users were utilising the network of tracks across the Plain. Direct comparison with the current survey is difficult because:
- The 2006 survey was focussed on the eastern Plain only
 - Survey work (interviews) in 2006 were focussed around just five locations (Weather Hill, Bulford Field, Tidworth/Sidbury Hill, Warren Hill and the Drop Zone)
 - The 2006 questionnaire was more basic and contained just eight questions.
 - Survey work in 2006 was undertaken during late September and October as opposed to the summer holiday period in 2015
 - The driving transect is broadly similar between the two surveys, however it was repeated 14 times in 2006, during the autumn, and the route was varied on some dates due to military activity or road works. In the 2015 survey the route was slightly different and repeated 17 times during August.
 - More reliable automated counters were used in the 2015 survey and wider range of locations chosen.
- 4.2 The 2015 survey is much more comprehensive in terms of the levels of survey effort, geographical coverage and of detail (especially in the face to face questionnaires) and is more robust in terms of the conclusions that can be drawn. We have attempted to compare some key findings from the two surveys in Table 23. Caution is necessary in interpretation of the results, due to the caveats expressed above. We have refrained from any statistical testing due to the differences between the two surveys.
- 4.3 In general the key findings appear to be broadly similar, or where different can be explained by differences in survey points etc. Perhaps the most striking difference relates to the median distance between the interview location and the home postcode, with the 2006 survey appearing to include people from a much wider area. This difference is likely to be due to the survey points rather than any real change over time, as for example, Map 11 and Table 18 in this report show a marked difference between different survey points. In particular some of the western survey points have relatively small draw, as shown in Map 12, perhaps in part because there are settlements relatively close to the survey points.
- 4.4 In Map 15 we show the postcode data from the original 2006 survey and the postcode data from the current survey for the east plain. Maps show there is a relatively close match in the distribution of visitors postcodes. Although the 95% nearest postcodes cover slightly different areas, most likely due to more tourists from across the UK in the current survey, the coverage appears reasonably consistent.

Table 23: Comparison of a range of different findings from the 2006 visitor survey and this survey. Results from this survey are drawn from all survey points.

	2006 survey	2015 survey
Total interviews (survey effort)	169 (80 hours survey plus additional interviews undertaken opportunistically, e.g. on transects)	363 (288 hours survey)
Group size (people per interviewed groups)	1.6	1.7
Group size (dogs per interviewed groups)	1.4	0.75
% interviewees activity = dog walking	82	74 (excludes professional dog walkers)
% interviewees activity = cycling	3	3
% interviewees activity = jogging	4	2
% interviewees activity = walking	5	10
Percentage visiting at least once per week	88	79
Percentage visiting equally all year round	95	87
Percentage travelling by car	74	81
Median route length (km)	3.0	3.0
Median distance interview location – home postcode (km)	6.5	2.9
Total parked cars from driving transects (length driven)	204 (654km, includes roads)	221 (850km)
Parked vehicles per km on driving transects	0.31	0.26

Map 15: Home postcodes of the 95% nearest to the SPA interviewees from the 2006 survey and for the east plain from the current surveys. Overlapping postcodes, within 500m of each other, are replotted as rings.



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5. Discussion

- 5.1 This survey provides a comprehensive overview of visitor use of Salisbury Plain, undertaken during the school holiday period in the summer of 2015. The survey is focused on the SPA, but includes locations just outside this area (e.g. Pernham Down, survey location 5).

The challenges of undertaking a visitor survey on Salisbury Plain

- 5.2 The visitor survey results reveal a diffuse level of access across the Plain. We have used a combination of driving transects, automated counters and interviews to ensure as much spatial coverage as possible. It is clear many visitors do use the tracks and various routes that are available and the sense of space and openness is a draw. Selecting survey locations in such an open landscape is a challenge.
- 5.3 Survey results show that quiet access points, such as footpaths or very small parking areas, some distance from towns and villages, can have moderate access levels. In addition to the by-ways, the Plain is crossed by several footpaths, or informal paths used by pedestrians which would have low levels of access. The sensor at location 11 may be indicative of these and recorded approximately 5 passes per day.
- 5.4 The two sensors at locations 7 and 13 had a marked contrast in the number of visitors recorded at weekends compared to weekdays. These sites were quite remote and most likely do not have a regular number of daily weekday visitors, compared to areas nearer to towns and villages. Results from locations such as these would suggest users spreading out more during the weekend and utilising some of the longer, more remote tracks and paths.
- 5.5 The spatial spread of sensors was also an issue. Trying to archiving good coverage while ensuring units were able to be fixed (e.g. Barden's clump) and not lost during deployment (e.g. Alton Sentry Post).
- 5.6 One particular challenge with the survey approach is ensuring a random selection of visitors was interviewed. It is likely that the interview data is not entirely representative due to the challenges with intercepting and interviewing some types of visitor. In particular the interviews include limited data on the off-roading community. The tally, automated counter and driving transect data indicate higher levels of use than the interviews. Surveyors noted parties of 4x4s observed at different locations on different days and also noted that many locals in cars/ 4x4s use the tracks through the plain as shortcuts. Such use would not have been picked up by the visitor interviews which targeted people outside their vehicles. The high proportion (over 74%) of interviewees dog walking may reflect the ease of intercepting and interviewing dog walkers as opposed to other activities such as off-roading or cycling where potential interviewees are moving at speed and be difficult to stop safely.

- 5.7 By their very nature, certain activities such as the off-roading and quad bikes will focus on the remoter areas and difficult terrain (such as muddy tracks). Survey locations were mostly the busier areas that were discrete access points, and areas some users (such as the off-roading community) may actively avoid these areas and segregate themselves from other use groups.

Survey timing

- 5.8 Survey timing is important as the timings potentially match the time of year when access might be expected to peak and also coincides with the period when stone curlews are present (they are summer migrants, present from March-October). The late summer is not, however, necessarily the time stone curlews are most vulnerable to disturbance, as this is likely to be when they first settle on territories (Taylor, Green & Perrins 2007).
- 5.9 During the summer period access levels may well be high as people have more leisure time and the weather is more favourable, and national data tends to show a peak in visits to the countryside over the summer period (TNS 2015). However, during this period local residents may well be away on holiday and therefore much of that peak in access may occur elsewhere. As the survey points are not really holiday destinations and few holiday makers were interviewed, it is not necessarily the case that peak levels of access at Salisbury Plain will occur during the summer.
- 5.10 A further consideration is the longer days during the summer, which may mean any effect of higher access levels are diluted due to more hours of daylight. In our comparison with the 2006 survey the shorter day length during late September/October has not been factored into the comparison.

Implications

- 5.11 The survey results indicate recreational use of Salisbury Plain by people living in or around the Plain. The 75th percentile from the data on the distance from home postcodes to survey point is a good measure of a zone of influence, and the data would suggest a distance of around 6.4km. The use of the 75th percentile from similar visitor survey data has been used to define a zone of influence around other European sites such as the Dorset Heaths, Thames Basin Heaths, the Solent, Ashdown Forest, Cannock Chase and sites in south-east Devon. The 6.4km here is relatively similar to the data from some of those other sites – for example 5km is used for the Thames Basin Heaths and the Dorset Heaths, 5.9km is used on the Solent and 7.5km at Ashdown Forest.
- 5.12 Within this report we have focussed on visitor survey data, and have not related that survey data to the interest features of the European site or particularly sensitive locations. Making the links between access and ecological data can involve long and complex ecological research, which is beyond the scope of this report. Detailed observational work on stone curlews has shown that people, dogs and vehicles can all cause disturbance and affect settlement patterns (Taylor, Green & Perrins 2007). Comparison of different types of activity shows more marked behavioural responses in particular to people walking with dogs when compared to people without dogs and less

marked response again for vehicles compared to people. The levels of dog walking and vehicles recorded in this survey may therefore have particular implications.

- 5.13 A key component of use on Salisbury Plain is of course the military use, which is again outside the scope of this document. We are not able to place the levels of access recorded here in context with the level of military use and operational training. In the long term, management of disturbance and impacts of access will relate not just to the changes in local housing and recreational use of the Plain, but also to the location, management and distribution of stone curlew plots and the use of the area by the military.

6. References

- Alessa, L., Bennett, S.M. & Kliskey, A.D. (2003) Effects of knowledge, personal attribution and perception of ecosystem health on depreciative behaviors in the intertidal zone of Pacific Rim National Park and Reserve. *Journal of Environmental Management*, **68**, 207–218.
- Clarke, R.T. & Liley, D. (2013) *Further Assessments of the Relationship between Buildings and Stone Curlew Distribution*. unpublished report for Breckland District Council, Footprint Ecology, Wareham, Dorset.
- Clarke, R.T., Liley, D., Sharp, J.M. & Green, R.E. (2013) Building Development and Roads: Implications for the Distribution of Stone Curlews across the Brecks. *PLoS ONE*, **8**, e72984.
- Clarke, R.T., Sharp, J. & Liley, D. (2008) *Access Patterns in South-East Dorset. The Dorset Household Survey: Consequences for Future Housing and Greenspace Provision*. Footprint Ecology / Poole Borough Council.
- English Nature. (2002) *Lowland Heathland- a Cultural and Endangered Landscape*. English Nature, Peterborough.
- Hammond, N. (1998) *Modern Wildlife Painting*. Pica Books, Sussex.
- Liley, D. (2008) *Development and the North Norfolk Coast: Scoping Document on the Issues Relating to Access*. Footprint Ecology / RSPB / Norfolk Coast Partnership.
- Liley, D. & Clarke, R. (2006) *Predicting Visitor Numbers to the Thames Basin Heaths*. Footprint Ecology / CEH.
- Liley, D., Lake, S., Underhill-Day, J., Sharp, J., White, J., Hoskin, R., Cruickshanks, K. & Fearnley, H. (2010) *Welsh Seasonal Habitat Vulnerability Review*. Footprint Ecology / CCW.
- Liley, D., Payne, K. & Peat, J. (2007) *Access Patterns on Salisbury Plain*. Footprint Ecology / Enviro Ltd., Wareham, Dorset.
- Liley, D. & Sutherland, W.J. (2007) Predicting the population consequences of human disturbance for Ringed Plovers *Charadrius hiaticula*: a game theory approach. *Ibis*, **149**, 82–94.
- Lowen, J., Liley, D., Underhill-Day, J. & Whitehouse, A.T. (2008) *Access and Nature Conservation Reconciliation: supplementary guidance for England*.
- Mallord, J.W. (2005) *Predicting the Consequences of Human Disturbance, Urbanisation and Fragmentation for a Woodlark *Lullula Arborea* Population*. UEA, School of Biological Sciences, Norwich.
- Miller, J.R. & Hobbs, R.J. (2002) Conservation Where People Live and Work. *Conservation Biology*, **16**, 330–337.
- Morris, N. (2003) *Health, Well-Being and Open Space Literature Review*. Edinburgh College of Art and Heriot-Watt University, Edinburgh.
- Pretty, J., Griffin, M., Peacock, J., Hine, R., Selens, M. & South, N. (2005) A countryside for health and well-being: the physical and mental health benefits of green exercise. *Countryside Recreation*, **13**, 2–7.

- Randall, R.E. (2004) Management of coastal vegetated shingle in the United Kingdom. *Journal of Coastal Conservation*, **10**, 159–168.
- Robinson, J.G. (2006) Conservation Biology and Real-World Conservation. *Conservation Biology*, **20**, 658–669.
- Saunders, G. (2005) Knowing from the start. *ECOS*, **26**.
- Saunders, C., Selwyn, J., Richardson, S., May, V. & Heeps, C. (2000) *A Review of the Effects of Recreational Interactions within UK European Marine Sites*. UK CEED & Bournemouth University.
- Sharp, J., Clarke, R.T., Liley, D. & Green, R.E. (2008) *The Effect of Housing Development and Roads on the Distribution of Stone Curlews in the Brecks*. Footprint Ecology / Breckland District Council.
- Snyder, G. (1990) *The Practice of the Wild*. North Point Press, New York.
- Stillman, R.A., Cox, J., Liley, D., Ravenscroft, N., Sharp, J. & Wells, M. (2009) *Solent Disturbance and Mitigation Project: Phase I Report*. Footprint Ecology / Solent Forum.
- Stillman, R.A., West, A.D., Clarke, R.T. & Liley, D. (2012) *Solent Disturbance and Mitigation Project Phase II: Predicting the Impact of Human Disturbance on Overwintering Birds in the Solent*. Solent Forum / Bournemouth University / Footprint Ecology.
- Tansley, A.G. (1945) *Our Heritage of Wild Nature*. Cambridge University Press.
- Taylor, E.C., Green, R.E. & Perrins, J. (2007) Stone-curlews *Burhinus oedicnemus* and recreational disturbance: developing a management tool for access. *Ibis*, **149**, 37–44.
- Thompson, D.B.A., Price, M.F. & Galbraith, C.A. (2005) *Mountains of Northern Europe: Conservation, Management, People and Nature*. Scottish Natural Heritage, Edinburgh, UK.
- TNS. (2015) *Monitor of Engagement with the Natural Environment Technical Report from the 2013-14 Survey*. Natural England Joint Report.
- Underhill-Day, J.C. (2005) *A Literature Review of Urban Effects on Lowland Heaths and Their Wildlife*. English Nature, Peterborough.

Appendix 1: Questionnaire

Salisbury Plain Visitor Survey 2015