



## Visitor Travel in the Brecon Beacons National Park



Photograph courtesy of Carl Stringer 2010

Alison Kidd and Peter Williams

[www.prospectory.co.uk](http://www.prospectory.co.uk)

October 2010

*We are grateful to the Brecon Beacons Sustainable Development Fund and Glasu for part funding this study.*



Cronfa Datblygu  
Cynaliadwy  
Sustainable  
Development Fund



Powys Regeneration Partnership  
**PRP**  
Partneriaeth Adfywiau Powys



European Union  
Cronfa Amaethyddol Ewrop ar gyfer Datblygu  
Gwledig Ewrop yn Buddsoddi  
mewn Ardaloedd Gwledig  
The European Agricultural Fund for  
Rural Development: Europe Investing in  
Rural Areas



## 1 Introduction

This study explores visitor travel in the Brecon Beacons National Park (BBNP) during Summer 2010.

The study forms part of the b-bug research project<sup>1</sup>. In 2011, we plan to run a trial offering visitors to the Brecon Beacons the opportunity to hire two electrically-powered buggies ('b-bugs') at caravan sites or holiday cottages to travel to the nearby shops or local attractions *instead of using their cars*.

The electric buggies, developed by Dragon Electric Vehicles<sup>2</sup> accommodate 2 people and have a range of 30 miles. To inform the 2011 b-bug trial, the current study had the following aims:-

1. To discover the proportion of daily visitor car journeys which could (in principle) be accommodated by a b-bug.
2. To identify a target customer group for the b-bug trial.
3. To gather early feedback on the b-bug concept, design and perceived value.

To address these aims, the current study consisted of two parts:-

1. A paper-based survey sampling daily travel by visitors staying at caravan sites and holiday cottages within a 15 mile radius of Brecon.
2. Informal b-bug demonstrations around the Brecon area to elicit visitors' reactions and explore the likely uses and value of the b-bug in next year's trial. A prototype version of the b-bug was used for these sessions.

We are grateful to the BBNP Sustainable Development Fund and Glasu for part-funding the current study and Brecon Beacons Holiday cottages together with Pencelli, Llangorse and Brynich caravan sites for helping administer the surveys.

## 2 The Survey

We designed a paper survey to sample the daily journeys made by visitors staying at caravan sites or holiday cottages for 2 nights or more. Our main aim was to record their destinations (e.g. Brecon, Dan-yr-Ogof, etc), the means of travel (car, bike, walk, bus, etc), the purpose (outdoor activity, shopping, eating out, etc) and how many people were involved in the trip. We also asked for mileage estimates but, given that we recorded their accommodation site and the trip destinations, we later calculated the round trip mileages ourselves to ensure their accuracy.

The survey also asked where people came from (home town), the number in their party, their length of stay and whether they would consider travelling to the Brecon Beacons by public transport.

---

<sup>1</sup> [www.b-bug.com](http://www.b-bug.com) We are grateful to the Welsh Assembly Government's Sustainable Development Challenge for part funding the build of the two trial b-bugs.

<sup>2</sup> [www.dragonev.co.uk](http://www.dragonev.co.uk)

We (and the National Park) were keen to include a wider range of transport-related questions but early pilots showed us that we would need to keep the surveys very short in order to motivate their completion. As a result of pilot feedback, we introduced a very short version of the survey for the caravan sites (sampling only 3 journeys) and a longer version for the holiday cottages. The latter included: their milometer readings, the frequency of different activities, whether they used public transport and how much they enjoyed their visit.

All survey respondents were invited to enter a prize draw. 50% chose to do so.

The cottage surveys were distributed (with the kind help of Brecon Beacons Holiday Cottages) to 30 cottages within a 15 mile radius of Brecon. Freepost envelopes were provided. The caravan site surveys were placed in the reception or information areas of Pencelli Castle, Llangorse Lakeside and Brynich sites with the kind assistance of their staff. Collection boxes were provided for completed surveys.

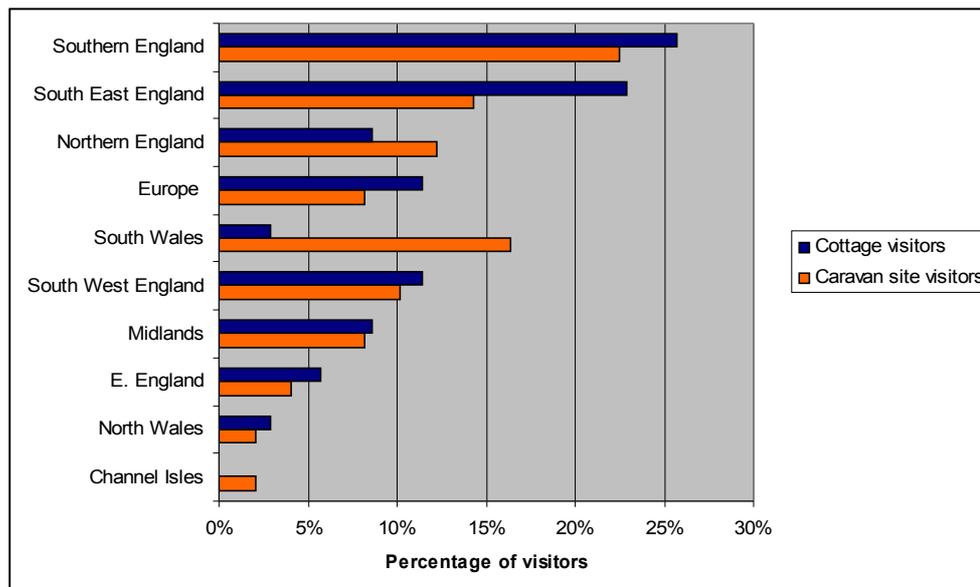
We also carried out a small number of face to face surveys in a couple of local pubs, a YMCA, at the Mountain centre and at Dan-yr-Ogof caves. This picked up some additional day visitors to the area who were excluded from the final analysis.

The survey ran from July through September 2010.

## 2.1 Survey results – about the visitors

109 completed surveys were received. The majority (61%) came from visitors staying on caravan sites<sup>3</sup>. 33% came from holiday cottage visitors and 6% from other B&B establishments.

Figure 1 shows where the visitors came from depending on whether they were staying on caravan sites or in cottages.



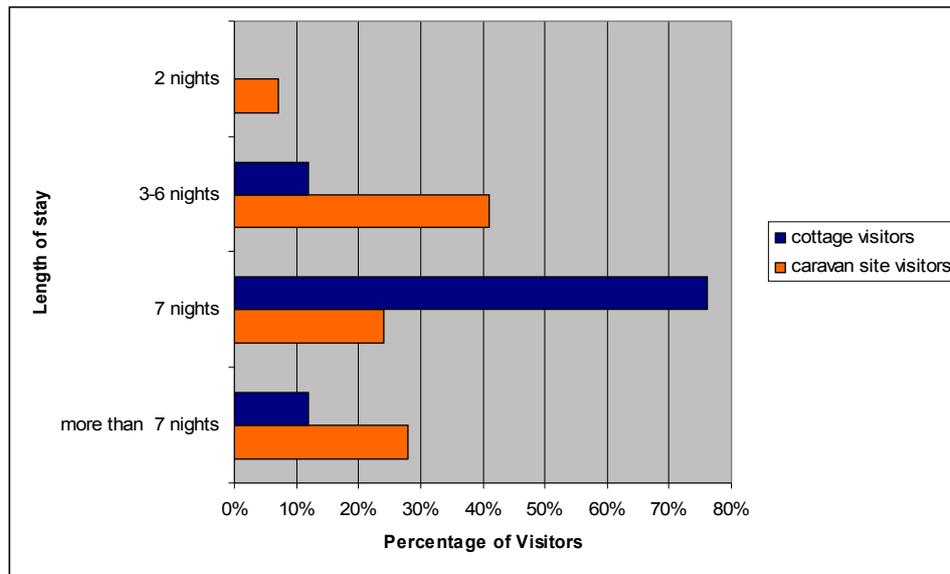
**Figure 1 : Where visitors came from**

<sup>3</sup> In either tents, caravans or motorhomes.

The majority of visitors came from parts of South, South East and South West England. Caravan site visitors were proportionately less likely to hail from the London area (S.E. England) and more likely than cottage visitors to come from South Wales and Northern England.

The average round trip from home<sup>4</sup> was 311 miles and the median was 322 miles. Caravan site visitors came less far (285 miles average compared to 336 miles for cottage visitors).

Figure 2 shows their length of stay.



**Figure 2 : How long did visitors stay**

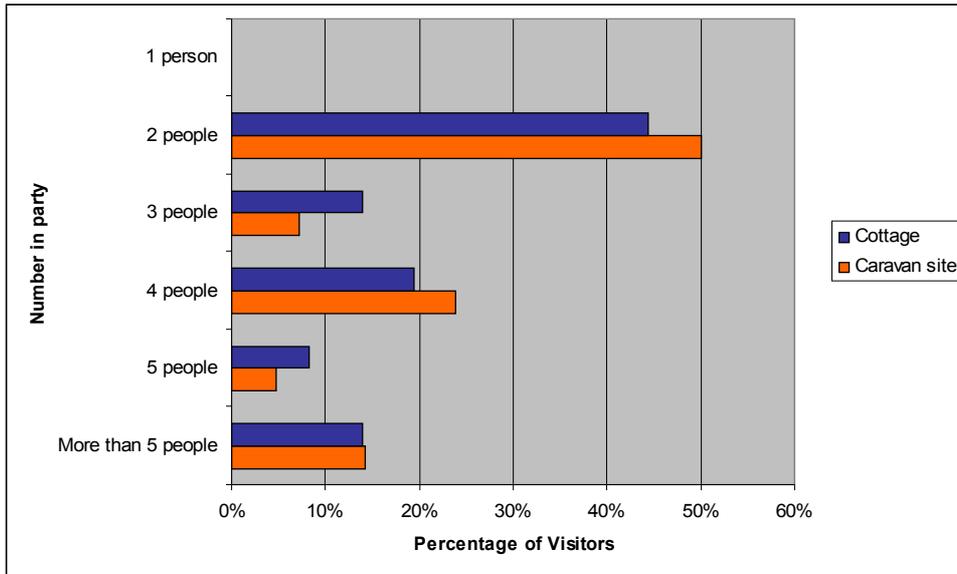
Caravan site visitors were fairly evenly split between staying less than a week and staying longer. Cottage visitors nearly all stayed exactly one week.

We expected a correlation between the length of stay and the distance travelled from home but there was none. Those staying less than a week still averaged a round trip of 296 miles.

Figure 3 shows the size of each party.

---

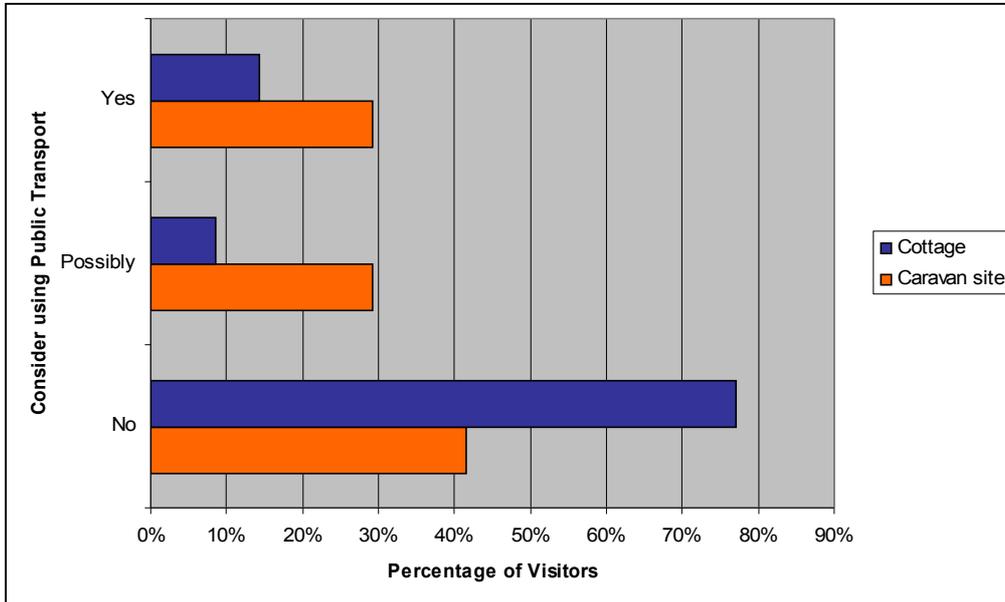
<sup>4</sup> This calculation excludes the 10 European visitors.



**Figure 3 : Size of party**

The commonest party size in both caravan and cottages was 2 people. This is consistent with other visitor surveys<sup>5</sup> in the area. 44% of the parties included children. This was the same percentage for caravan sites and cottages.

The survey asked whether, if practical, visitors would consider travelling to the Brecon Beacons by public transport. Figure 4 shows the result.



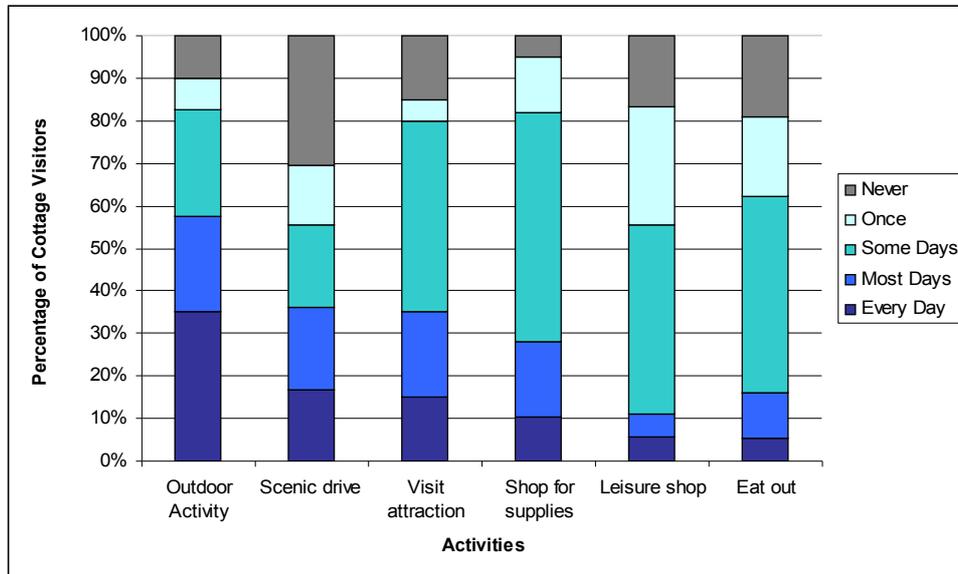
**Figure 4 : Would visitors consider travelling here by public transport?**

Here there was a marked difference in attitude between caravan site visitors and cottage visitors. 77% of cottage visitors said they wouldn't even consider a public

<sup>5</sup> <http://www.breconbeacons.org/the-authority/working-in-partnership/brecon-visitor-satisfaction-survey-2008/view>

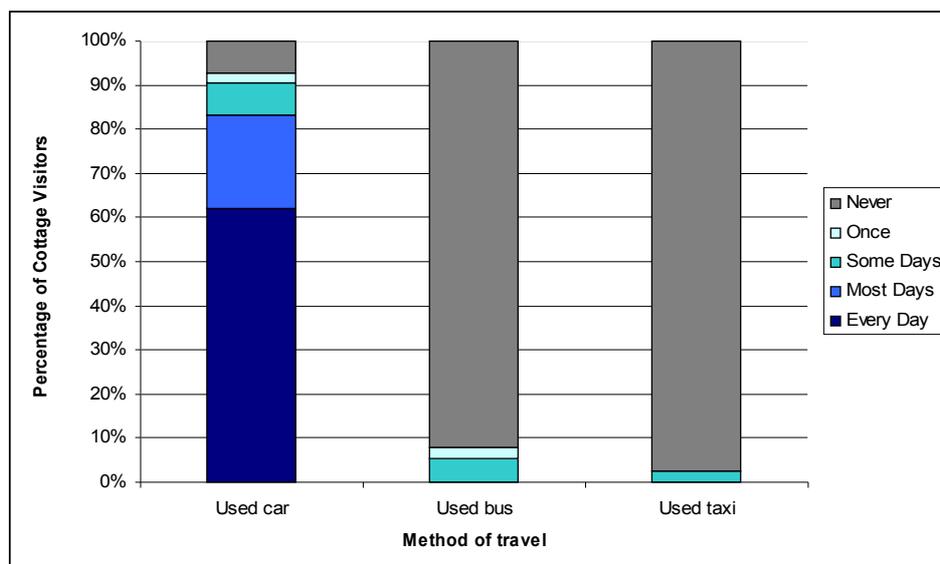
transport option whereas that was only true of 41% of caravan site visitors despite the fact that the latter, arguably, were more reliant on a car to transport their caravan or camping gear. It could be that cottage visitors are more car-centric in outlook or that they need a car more given that many cottages are situated off the beaten track.

With the longer version of the survey, the cottage visitors were asked about the frequency of their activities during the week. Figure 5 shows their responses.



**Figure 5 : What Holiday cottage visitors said they did during their stay**

The cottage survey also asked how often they used their cars or a bus or a taxi to get around area. Figure 6 shows their responses.



**Figure 6 : How often Holiday Cottage Visitors used different transport**

83% used their cars most or every day and only 8% used a bus on any occasion. A number of the respondents chose to comment about buses:-

*"...it didn't occur to us to try to use public transport as we used the car to get us and our dogs to places where it was safer to walk them. We didn't even see a bus all week!"*

*"Great part of the country to stay - excellent accommodation and plenty of activities for the family. Difficult to get around via public transport. Unless you are on a walking/cycling holiday, a car is essential."*

*"I'm travelling around to see places and hike. Car means I'm flexible and quickly get to the start of a hike - that's difficult with public transport!"*

*"If you would like to improve public transport use in the area, it is very important that these should be very frequent and very cheap/or free. An excellent example is Kleinwalzertal in Austria where, if you hire a cottage, you can use public transport for free and buses run every 10 minutes. We only used the car twice in 10 days staying there! We wouldn't travel here by public transport because of the children but we would use it in the area certainly."*

*"We should use the public transport more. It would help if the first thing we saw in all the leaflets was all the routes and times - we didn't see one at all (but didn't look that hard)."*

Finally, when asked how much they had enjoyed their visit, all the cottage visitors chose the top response "very much". The following comments reflect that view.

*"We had a wonderful holiday here. Our accommodation was perfect and we hope to come back very soon."*

*"A beautiful area I would return to and recommend. Our cottage was wonderful! Enjoyed Wales. Bit disappointed with Brecon."*

*"All in all, this was a very rewarding week in a most welcome area."*

## **2.2 Survey Results – daily travel**

### **2.2.1 Overall mileage during the stay**

We would liked to have established the average weekly mileage during a visitor stay but this was difficult to achieve. However, we have some indication from the 21 cottage visitors who recorded their milometer readings at the start and end of their visit.

The minimum recorded was 25 miles in the week and the maximum recorded was 637 miles. The median was 318 miles<sup>6</sup> which, strikingly, is almost exactly equal to the median for the round trip mileage from their homes (322 miles). It is also way above the national average for car mileage in a week (230 miles<sup>7</sup>). We know that some cases were even more extreme than that from the individual trips they recorded. One family from Germany, for example, visited Swansea, St David's, Worcester, Monmouth and Bath as well as Bude and Torquay on their final day. They managed 600 miles in one day! Another group drove to visit the Eden

---

<sup>6</sup> The median means that half travelled more than 311 miles and half less (in the week). The median is a more accurate measure than the average for a small or heavily skewed population.

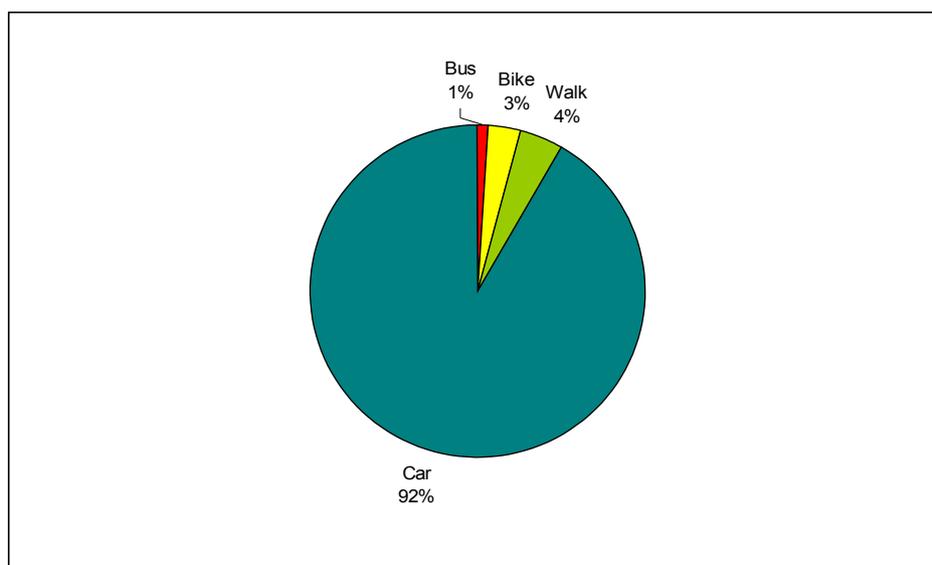
<sup>7</sup> Based on a national average of 12,000 miles a year.

project in Cornwall for the day - they weren't aware of the National Botanical gardens of Wales.

## 2.2.2 Trip mileage

The 109 surveys recorded a sample of 402 individual trips.

Nearly all the recorded trips were by car as Figure 7 shows.

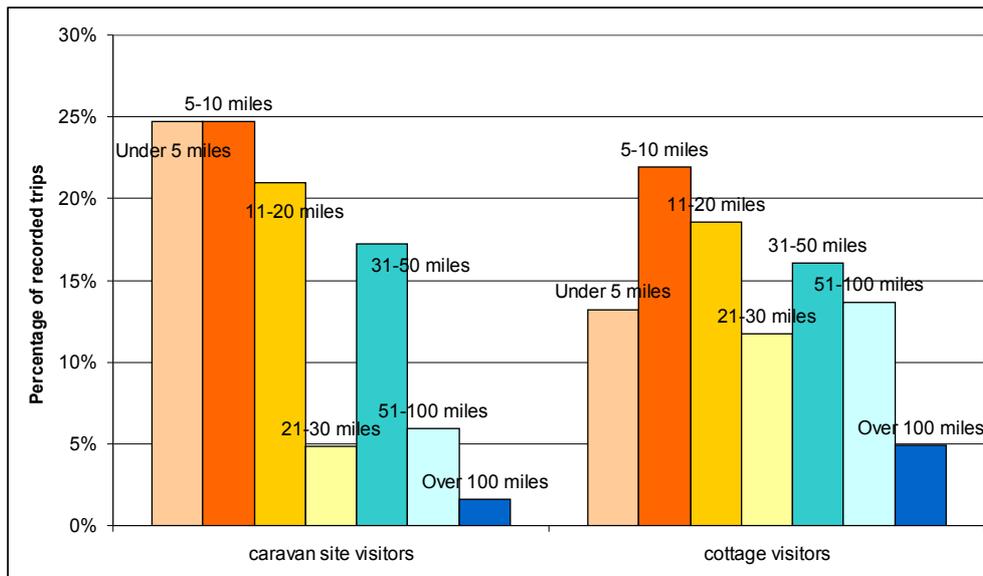


**Figure 7 : Means of travel (402 trips)**

We should stress that these data do not mean that very few visitors walked or cycled whilst they were here. They clearly did so frequently but the key point is that it was very rare for visitors to use cycling or walking as a 'functional' means of travel, i.e. to get from a to b for some other purpose (e.g. shopping, eating out, reaching the start of a walk, etc). When people recorded trips to eat out or shop only 1 mile away, 35% walked but the rest still took the car. Interestingly, there was only one recorded instance where a bike was used for either a short or 'functional' trip (e.g. to collect shopping). In all other cases, the cycle rides were lengthy leisure activities in their own right.

The average (round) trip length was 29 miles and the median was 15 miles. (The average is distorted by a small number of very long day trips like the ones mentioned above.)

The cottage visitors tended to make longer trips (average 34 miles and median 18 miles). Figure 8 shows the frequency of different length trips by caravan site compared to cottage visitors.



**Figure 8 : Different length (round) trips made by caravan site visitors compared to cottage visitors**

50% of trips made by caravan site visitors were under 10 miles whereas that was only true for 35% of cottage visitor trips. Cottage visitors also made more than twice as many long trips (over 50 miles). People staying 1 week did the highest mileage (averaging 40 miles per trip). Those staying only a few days travelled less far as did those who stayed for several weeks. There was no correlation between the distance travelled from home and the mileage whilst on holiday.

Given that many of the respondents recorded more than one car journey a day, it is easy to see how a week's total of 300 miles plus might be easily reached.

### 2.2.3 Destinations

78 different destinations were recorded in the sample of 402 trips but less than half of these (42%) were mentioned more than once. 30% of the destinations lay outside the National Park with quite a number outside Wales! Table 1 shows the destinations recorded by more than 2% of our sample.

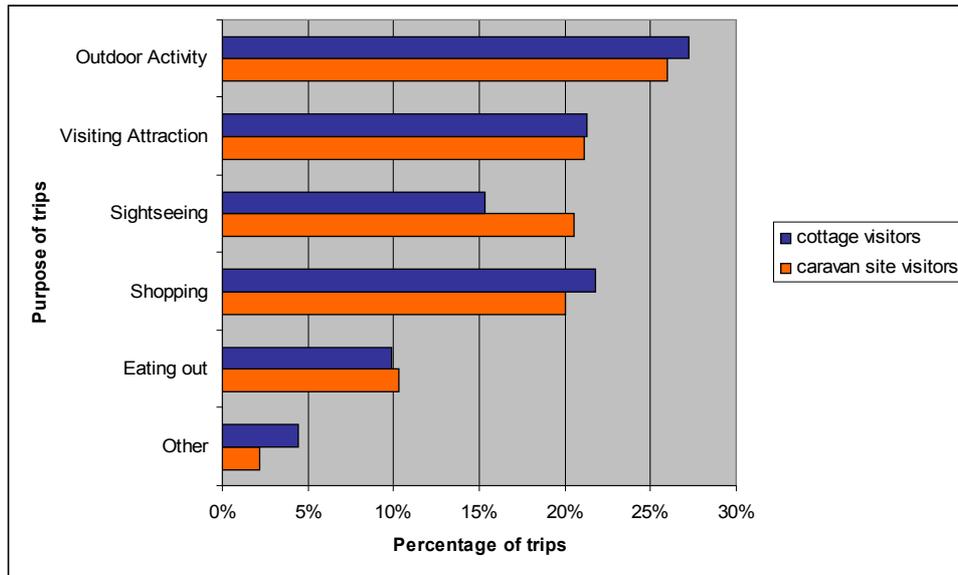
DESTINATION	Number of trips	% Trips
Brecon	90	26%
Hay-on-Wye	23	7%
Talybont	19	6%
Storey Arms	14	4%
Ystradfallte waterfalls	13	4%
Llangorse lake	12	3%
Mountain Centre	11	3%
Dan yr Ogof	11	3%
Talybont Reservoir	8	2%
Abergavenny	8	2%
Crickhowell	7	2%
Brecon Mountain Railway	6	2%

**Table 1 : Most frequently recorded destinations**

The dominance of Brecon is not surprising given the geography of the sample and the need for most visitors to shop. But the thin spread across other destinations suggests that this area does not have many strongly recognised tourist attractions. This may not matter unless visitors are travelling further afield in order to visit better known places.

### 2.2.4 Activities

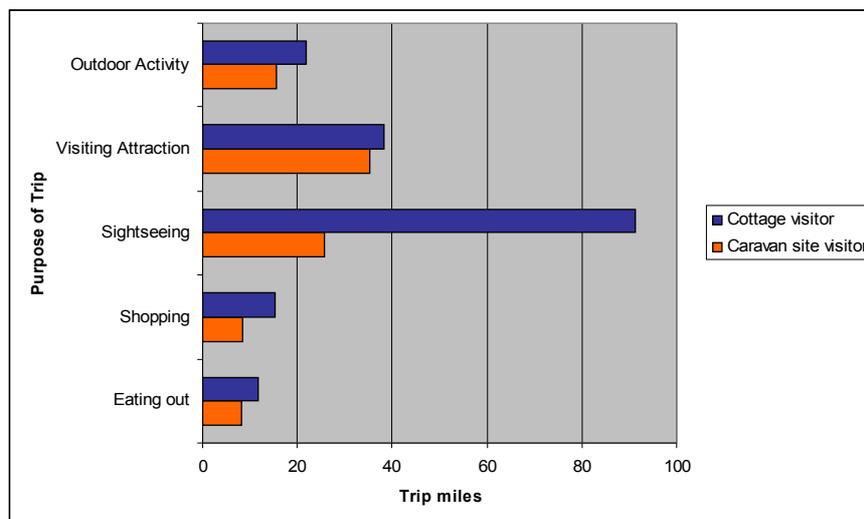
Visitors were asked to record the purpose of each trip. Figure 9 shows the frequency of each recorded activity for caravan site and cottage visitors.



**Figure 9 : Purpose of trips**

It is encouraging that outdoor activities were the commonest motivation. Except for sightseeing, the purposes were similar for caravan site and cottage visitors.

However, the cottage visitors travelled significantly further to achieve their purposes as shown in Figure 10.

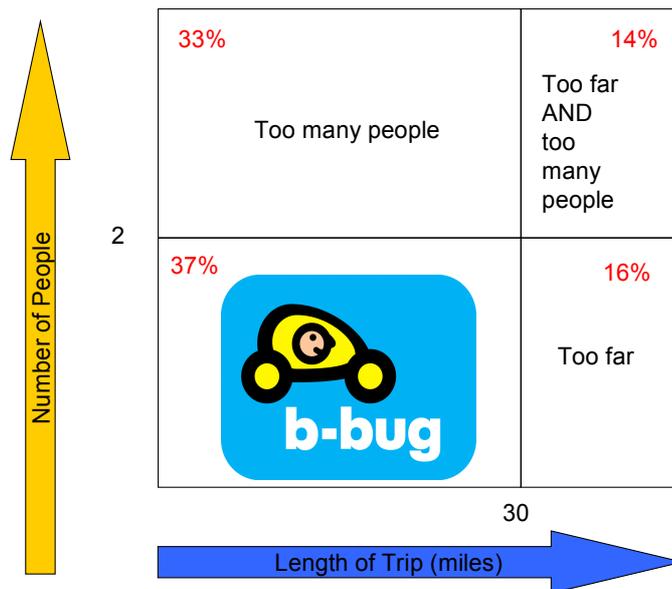


**Figure 10 : Average Distance travelled for each activity type**

It seems that caravan site and cottage visitors engage in many of the same activities but the cottage visitors travel significantly further to do any of them, particularly sightseeing.

### 2.2.5 b-bug trips

The sample allowed us to calculate the percentage of visitor trips which could, in principle, use a b-bug given the limitation of 2 passengers and a 30 mile range (without recharging). Figure 11 shows the result.

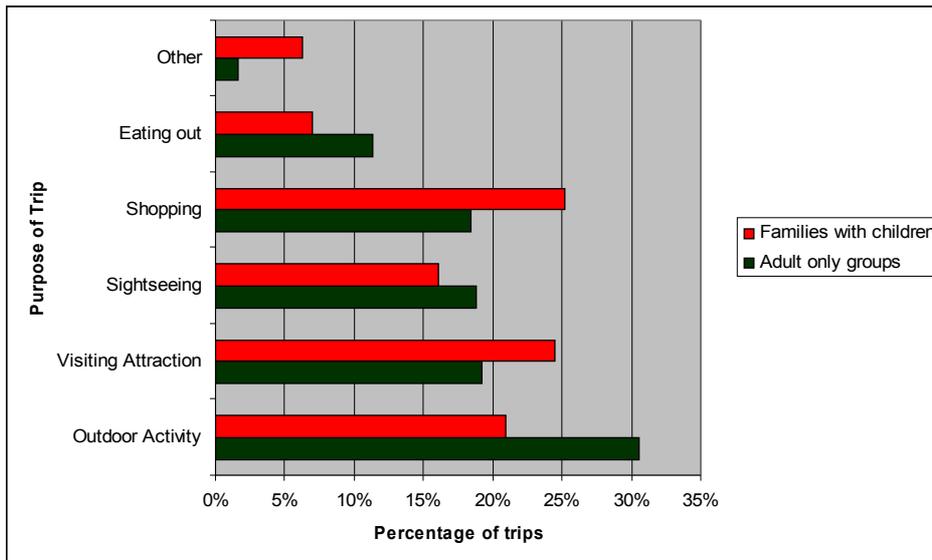


**Figure 11: Percentage of sampled trips which could use a b-bug**

37% of the 402 sampled trips could (in principle) have used a b-bug, i.e. they were less than 30 miles (round trip) and only involved either 1 or 2 people. Obviously, this could be extended with charging points.

### 2.2.6 Families with children

44% of the visitors surveyed had children. We had a quick look at whether families with children behaved any differently with regard to travel and activities. The answer was 'yes' as shown in Figure 12.



**Figure 12 : Activity profile of adult groups versus families with children**

For the family groups, trips to engage in outdoor activities were much less common (only 21%) whilst visitor attractions and shopping were much more common. The families with children also travelled further (from home) and their daily car trips were 30% longer on average. This is slightly discouraging.

### 3 b-bug feedback sessions

The 2<sup>nd</sup> part of the research study involved feedback sessions where we visited different locations with the prototype b-bug and poster information about the 2011 b-bug trial. This idea was to expose the b-bug concept to visitors, hear their questions and concerns, explore their interest levels, how they might use a b-bug, how much they might be willing to pay to hire one and their design requirements or preferences.

We did 5 half day sessions at the Mountain Centre, Llangorse Lake, Brynich Caravan Site, the Talybont show and the Brecon Green Fair plus 2 days at the Start Wales Festival. Over the 6 events, we talked to over 200 people.

#### 3.1 Overall reactions





At all the events, people were both intrigued and enthusiastic about the b-bug. Many were keen to hire one there and then.

The enthusiasm came from a surprisingly wide cross section of visitors – young children loved clambering into the buggy, teenagers and young people thought it looked 'cool'. Visitors in motorhomes felt it would free them to visit more of the area, techies were interested in its design and performance and environmentalists in its credentials for greener holiday transport. The elderly and disabled wondered if it might extend their range from their own electric buggies. Men and women seemed equally interested. The overwhelming reaction was that it would be fun to drive instead of a car.

The following are example comments we received:-

*"it would be great for a day's walking instead of taking the car – we could go to Brecon, Talybont, Storey Arms, the Mountain Centre"*

*"this would be perfect – I'm here with kids and we feel a bit stuck once we've parked up the motorhome – this would allow us to see more"*

*"I'd definitely hire one for the day – go into Brecon – drive round the lanes here – the kids would love it!"*

*"if you have a camper van – this is ideal. I'd like to tow it behind"*

*"we live in London and have a holiday home here. We'd love to use this to get to Hay (8 miles) – it would be so much more relaxing and fun"*

*"if it was between this and the bus , I'd use this every time".*

We even received some VIP interest at the Start Wales Festival with Environment Minister Jane Davidson driving the b-bug and HRH Prince of Wales expressing his interest in the idea.



With the help of Graphics Designer, Jon Dixon<sup>9</sup>, we used these sessions to help us select a b-bug logo and strapline which caught people’s imagination. We asked visitors to vote on a number of different options and selected “b-bug – rain powered transport” as the visitors’ favourite.



We found that this particular logo and strapline caught people’s interest and also allowed us to communicate the idea of b-bugs being powered by “100% locally sourced electricity” from the Talybont-on-Usk hydro scheme which generates enough electricity to keep 150 b-bugs on the road. This concept itself has clear tourist appeal.

### 3.2 Identifying target trial customers and hire pricing

Identifying target customers for the 2011 trial proved more difficult given the wide spectrum of interest. From a logistics viewpoint, it would be simplest to hire the b-bugs through existing caravan sites and one or two sites expressed early interest in taking part in the trial. Others were concerned about safety issues and discouraging off-road use on common land (e.g. Llangorse common). We are also aware that some holiday cottage visitors would also be interested in having access.

We explored possible price points with the more interested parties. Again this was inconclusive because it depended on whether people viewed the b-bug as simply

<sup>8</sup> Two photographs courtesy of Carl Stringer.

<sup>9</sup> <http://www.anglezarke-dixon.co.uk/>

a sustainable transport alternative (e.g. to do the shopping in Brecon) or as entertainment. The former thought £15 per 1/2 day whereas the latter thought £30. We concluded that the pricing itself and the length of hire period may have to form part of the experimental aspect of the trial.

### **3.3 Concerns and design issues**

The following design concerns and issues were expressed:-

1. Some form of windscreen or rain protection for wet days although most people were ready to accept that the b-bug is basically an outdoor vehicle.
2. Carrying more people (particularly children) although one family seemed happy to hire two b-bugs for their family of four.
3. A lockable carrier on the back for the shopping or other personal items.
4. Where they could try driving it off-road.

We noticed that the usual issues with electric cars about low speed and range limitations were rarely expressed. Because the b-bug is clearly not a car, people seem to have different expectations of how they would use it and how fast and far they would expect to go in it.

## **4 Discussion and Conclusions**

### **4.1 Challenges and opportunities for sustainable visitor travel**

The survey data poses significant challenges for sustainable visitor transport and tourism in the Brecon Beacons National Park. The Authority is already aware and actively working to address most of these in innovative ways.

1. Visitors (particularly those staying in holiday cottages) rack up remarkably high car mileage *during their stay*. Prior to this study, we thought the main transport-related carbon impact was visitors travelling by car to the Beacons. This study suggests that visitors often equal or exceed that mileage during a 1 week stay.

Informal conversations with visitors suggested that some of the long journeys were a result of their lack of awareness of more local attractions. Anecdotally, there were 5 occasions where we were able to suggest a local activity or attraction which saved them driving 50 or 100 miles or more.

There is certainly plenty of visitor information available – perhaps they don't look at it or is it possible that it's not organised in a way which engages them? Could we provide a mobile phone app which texted them a suggested 'day out' or 'activity' each day depending on their location and family make up?

2. The data suggest that the visitor population are very car-centric in outlook even when "outdoor activities" make up their most frequent activity here. Most use their cars every day even for 1-2 mile trips. Even those who come here to enjoy walking or cycling engage in these activities as purely leisure activities, i.e. they do not think of them or practice them as interesting or enjoyable ways to travel from a to b for other purposes.<sup>10</sup>

---

<sup>10</sup> This is consistent with data on cycling in the UK compared to, say, Denmark or Netherlands. Cycling in the UK is primarily a (male) leisure pursuit with specialist bikes and clothing. Witness the number of cars arriving in Talybont at the weekend carrying bikes compared to the occupation of bike

This is a hard nut to crack but the fact that people are in a holiday mindset and not time-stressed, should provide us with the opportunity to offer them the chance to experience different ways of doing ordinary activities or journeys which could challenge their car-centric mindset.

3. Very few people used the bus. It seems likely that it never even occurred to them given they had a car.

4. Children on holiday here with their parents engage less in outdoor activities than adult groups and spend more time travelling by car.

Is this a matter of confidence or knowledge on the part of parents of how to include children in outdoor activities which are safe, doable and enjoyable for the age group? Could the Schools Activity Centre staff offer themselves as individual family guides for such activities during the school holidays?

## **4.2 Challenges and opportunities for the b-bug trial**

The study results suggest that visitors will enthusiastically hire the 2 trial b-bugs as a novel and fun travel experience.

The data also show that that the b-bugs, with their passenger and range limitations, could cater for 37% of the trips made by car today.

Prior to this study, we had imagined the b-bug replacing some of the short local trips which we thought visitors mostly did whilst on holiday here. Having now seen how much and how far they typically drive during their stay, we are wondering if the longer-term contribution of the b-bugs might be to encourage visitors to spend more of their stay enjoying the scenery and destinations *locally within the Park* instead of heading so far afield. The b-bug travels (relatively) slowly and makes the journey part of the day's enjoyment and experience. In particular, it could encourage people to explore (at a relaxed pace) the narrow and hilly country lanes which criss cross the park.

As a result of the study, we now plan to issue b-bug guides suggesting interesting country lane routes plus b-bug friendly destinations (and mileages) where hostleries and visitor attractions would offer free charge points encouraging b-bug users to visit them and park up for 2 hours whilst they re-charge their b-bug (and obviously themselves). Some businesses have already expressed interest in being part of such a scheme.

The study data also presents the b-bug trial with some challenges:-

No clear hire base or target customer segment emerged from the feedback sessions. We will have to remain flexible in where we place the b-bugs and adapt as the trial progresses.

Similarly, it is unclear what hire pricing structure will work for visitors – people's expectations varied wildly depending on whether they viewed the b-bug as a replacement for using the car or as a visitor experience in its own right.

It would be interesting to see if any cottage visitors would be willing to hire a b-bug for several days or an entire week' However, given there will be only two trial b-bugs, this would limit the number of different parties who could try one.

---

racks in Brecon by people simply using their bikes to reach the shops.

Finally, in the longer term, the study results suggest our biggest challenge (together with our National Park partners) is getting visitors to perceive the b-bug as a genuine, functional alternative to the car for getting around the Park as well as being a fun leisure experience in its own right.

For further information or questions about the 2011 b-bug trial, please visit [www.b-bug.com](http://www.b-bug.com) or contact [alison@prospectory.co.uk](mailto:alison@prospectory.co.uk).