

Summary

The Festival of Nature, run by the Bristol Natural History Consortium (BNHC) took place at Bristol Harbourside on the 15-16th June 2013, with an additional schools day on the 14th (which does not form part of this evaluation). This year was the 10th anniversary of the festival. Over the course of the weekend an estimated 12,414 people attended the festival. The audience was broadly representative of the population of Bristol, although teenagers and ethnic minorities were under-represented.

The evaluation shows that there is considerable social, economic and environmental impact of the festival. Most of these impacts are qualitative although it is possible to make a quantitative estimation of the economic impact. In terms of the social impact, respondents highlighted that it was an enjoyable learning experience for both adults and children. As with previous years, the festival was very well received and almost all respondents stated that they would be displeased if the festival were to be discontinued. The environmental impact is harder to quantify and this evaluation focused on attendees' learning and the potential environmental impact of attendees getting to the festival. Despite many people already having a significant level of knowledge and awareness of environmental issues, over 30% of respondents felt that the festival had changed the way they feel about environmental issues and over half planned to discuss issues outside of the festival. The economic value of the festival to the local economy and attendees was estimated to be between £52,000 and £73,000, although there are likely to be other indirect impacts that increase the value.

The aims of the Festival of Nature are as follows:

- To deliver a memorable celebration of the natural world and to recognise Bristol's reputation as a leading centre for the understanding and appreciation of natural history;
- To attract new audiences and widen participation in the understanding and enjoyment of the natural world.

With regards to these aims, the evaluation shows that the festival is valued by attendees and considered to be an enjoyable way to learn about nature and conservation. Whilst a significant proportion of attendees are well informed about the natural world, only 30% of respondents had been to the festival in 2012 and the proportion of attendees who came from outside of Bristol tripled this year. This suggests that the festival is attracting new audiences. It is less clear from the evaluation whether the festival enables people to recognise Bristol's reputation with respect to natural history; however, over 50% of respondents felt that they knew more about local opportunities for engaging with the natural world.

Data collection and attendance

A total of 239 surveys were conducted throughout the course of the weekend. In addition a hard count was conducted at the University of Bristol (UoB) tent; this was complemented by a brief exit survey for people leaving the festival, asking whether the individuals had been to the festival and the University of Bristol tent. Based on this information, the attendance at the overall festival was estimated as follows:

Hard count at UoB tent (Saturday): 3,599
 Percentage visiting UoB tent (Saturday): 57.2%
 Hard count at UoB tent (Sunday): 3,085
 Percentage visiting UoB tent (Sunday): 50.3%
Total University of Bristol tent attendance: 6,684

Estimated festival attendance (Saturday): 6,284
 Estimated festival attendance (Sunday): 6,130
Overall estimated festival attendance: 12,414

The results showed attendance was reasonably equivalent both days, which is not surprising given the bad weather forecasts for both days. As it happens, the weather on Saturday proved to be better than that on Sunday; however, both days had a significant amount of rain. The figure is lower than the attendance of around 13,000 in 2011, but around 2,500 higher than in 2012, when the weather also potentially affected attendance. However it worth noting that the hard count may not have been as accurate as in previous years because the evaluators had to take shelter in the UoB tent during the worst of the rain. They still carried out the hard count from inside the tent but restricted visibility could have affected the accuracy.

Audience

For this section, we assume that the profile of the survey respondents is fairly representative, at least in terms of their observable characteristics.

Table 1: The overall age distribution of respondents at the Festival of Nature compared with the population of the city of Bristol (data from Census 2011).

Age	Proportion of sample at Festival of Nature (%)	Proportion of Bristol population over 16 (%)
Under 18	2.1	2.6
18-24	14.8	16.6
25-29	10.6	11.6
30-44	32.2	27.2
45-59	20.8	20.2
60-74	16.5	13.7
75+	3.0	8.1

Table 2: The estimated age distribution of children at the Festival of Nature compared with the population of the city of Bristol (data from Census 2011).

Age	Proportion of sample at Festival of Nature (%)	Proportion of Bristol population under 18 (%)
0-4	36.1	32.9
5-7	29.2	16.2
8-9	14.6	10.5
10-14	16.0	22.9
15-17	4.2	17.6

Table 1 shows the age distribution of the respondents; since only those over 16 were approached to complete surveys, only the adult population of Bristol was considered as a comparison. The age distribution of children at the festival was estimated from the children accompanying the respondents, as described in Table 2. Both Tables 1 and 2 show that the adult respondents are broadly representative of the population of Bristol; however 10-17 year olds appear to be proportionately under-represented. This could be attributable, at least in part, to the survey method. However, it could also be that the festival is not attracting this audience – a number of comments recommended making the festival more adult oriented (which would also appeal to teenagers). It is also worth noting that 59% of the respondents were adults attending the festival without children, either as individuals or with other adults.

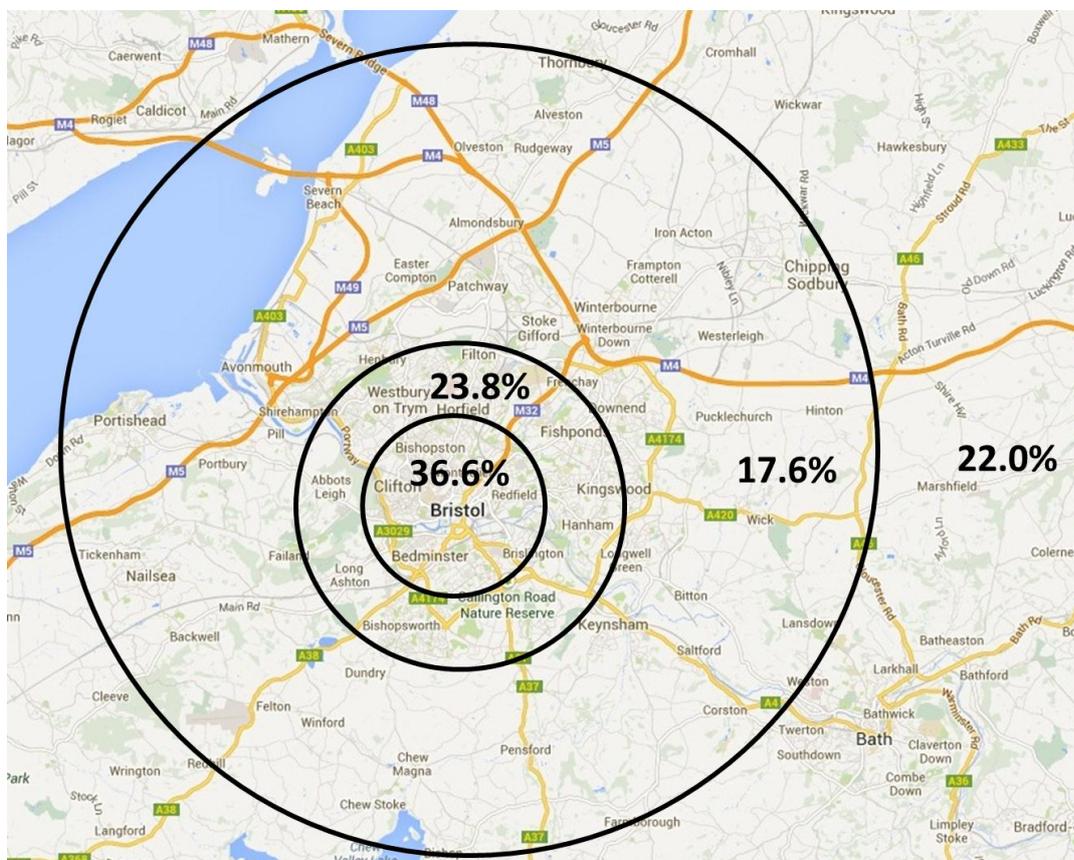


Figure 1: Map showing the approximate geographical distribution of respondents, based on postcode.

56.7% of the respondents to the potential visitor survey were female, 43.3% male. In terms of ethnicity, 3.5% of respondents identified themselves as Asian, 0.9% as Black, 1.3% as Chinese, 2.6% as Mixed race and 0.9% as other; the remaining 90.8% identified themselves as White (White British being the vast majority of these). Data from the 2011 Census states that 84.0% of the Bristol population is White; as such the festival organisers may want to think about how they might encourage a more diverse range of attendees. The majority of people (63.7%) were working full or part time; of the rest, 15.7% were retired, 15.2% were students and 5.4% were not in paid employment.

78.0% of the people came from Bristol or the surrounding area (as indicated by the BS postcode). The majority of people came from within 5 miles of the centre of Bristol with BS3 (Southville and Bedminster) and BS6 (Cotham and Redland) being the most prevalent. There was a significant increase, from 7.4% in 2012 to 22.0%, in people attending from outside the Bristol area.

Respondents were asked about how much they read about or attend events that focus on the environment; this was done to estimate the level of prior environmental awareness and interest. As Tables 3 and 4 show, the vast majority of respondents have participated in events or read about the environment. Compared to 2012, the percentage of respondents attending 10 or more events and reading 10 or more articles has increased (from 10.1% and 12.9% respectively); this suggests that a greater proportion of participants at the festival already have a certain level of knowledge about the environment. However, only 30.8% had attended the festival in the previous year (other years were not covered in the survey). Twelve people (5.5%) had been to a Bristol99 event – a series of events organised by BNHC that took place around the Festival of Nature.

Table 3: Number of times a year respondents visited a nature/environment/science centre or a nature event

Number of events	0	1	2-3	4-5	6-7	8-10	10+
Percentage of respondents (%)	2.1	14.0	32.2	18.2	9.7	3.8	19.9

Table 4: Number of times a month respondents read about nature or the environment, including the environmental/nature pages in the national broadsheets and articles about the environment in specialist magazines or online

Number of events	0	1	2-3	4-5	6-7	8-10	10+
Percentage of respondents (%)	5.5	14.3	18.5	13.4	4.6	8.8	34.9

Publicity

Attendees found out about the festival in a number of ways, as shown in Table 5 – with word of mouth being the most popular. The proportion of people who just happened to be passing and hadn't deliberately planned in advance to attend the festival is relatively high. This suggests that the festival is successful at attracting passers-by; however it is not possible to determine whether they would have planned to attend the festival if they had previously known about it. Online publicity seems to have been more effective than traditional methods such as print media and radio; this may help the festival organisers plan publicity for future years.

Table 5: The ways in which respondents found out about the Festival of Nature

How did you find out about the festival?	Proportion of respondents (%)
Attended before	9.3
Flyer/poster	9.3
Online	12.6
Radio	4.1
Newspaper/magazine	6.7
Big Green Week	3.3
Word of mouth	31.5
Just passing	14.1
Other	9.3

Social impact of the festival

The results of the survey indicate that the festival was very well received with 97.4% of respondents rating the festival either very good or quite good. When asked if they would attend the festival again next year, 93.5% stated that they would. Figure 2 shows the number of hours spent by the respondents at the festival; the average time spent was 1 hour and 53 minutes – almost identical to 2012. The wordle on the title page is made up of the words respondents used to sum up their experience of the festival. Fun, interesting, good, educational and informative were the mostly commonly recurring words (wet can be discounted because there is not much that can be done about the weather!). This is similar to 2012, although a notable omission this year is the word interactive.

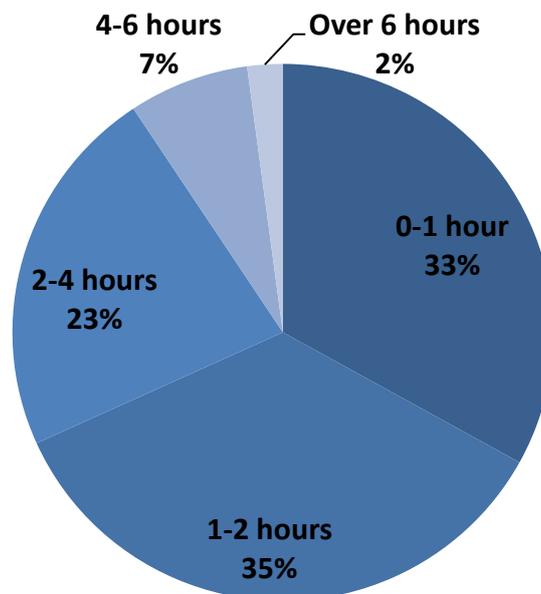


Figure 2: Number of hours spent at the festival

Tent Attendance and Feedback

The most popular exhibit at the festival was the BBC Natural History Unit (59.0% of respondents attended) followed by the University of Bristol tent (54.4%); this is the third year in a row that these two tents have been the most visited. Table 6 shows the percentage of respondents' attendance at each part of the festival. There were more tents or exhibits this year (24 in the Amphitheatre and Millennium Square compared with 19 in 2012 and 13 in 2011); however, since the average amount of time at the festival has not increased, the percentage of people visiting each exhibit/tent has decreased across the board. In particular the market showed a notable decrease this year, although the weather may be a factor since there was little shelter in that part of the festival.

Table 6: The percentage of respondents visiting each tent or festival area

Amphitheatre	%	Millennium Square	%	Anchor Square	%	Market Area	%
Arts	20.1	Avon Wildlife Trust	34.3	Green forum	29.3	Market	43.5
At-Bristol	24.2	BBC Natural History Unit	59.0				
Bristol Astronomical Society	19.7	Bristol Zoo Gardens	47.3				
Bristol Dinosaur Project	31.4	Clifton College	24.7				
Bristol Museum	21.8	Cycle Hub	36.0				
Bristol Water	19.7	MARINELife	26.4				
Cornwall College	20.1	National Trust	33.9				
Durrell Wildlife Conservation Trust	23.9	University of Bristol	54.4				
Land and Marine Conservation	25.9	University of the West of England	41.4				
North Somerset Butterfly House	20.5						
Oxfam	16.7						
RSPB	24.5						
Seeds of Change	27.6						
Westonbirt Arboretum	20.5						
Wild Waters	21.3						

The survey also picked up qualitative aspects and asked which areas of the festival were enjoyed the most and least. Many responses indicated that they enjoyed the range of activities at the festival. The favourite stalls indicated by this section of the questionnaire were the University of Bristol tent, the BBC tent, and the market. The least enjoyed section was less populated and easily the most common response was the rainy weather. Other areas included the market stalls (partly because there was no shelter), congestion in the tents and that the festival was too oriented to children. A further question asked for recommended areas for improvement; suggestions included:

- More shelter or undercover areas;
- More activities aimed at teenagers and adults;
- More publicity about the festival;

- Better signposting within the festival;
- More live animals;
- More interactivity.

Reasons for visiting the festival

The survey was used to get an estimate of how festival goers value the festival and their reasons for attending. Table 7 summarises the responses people gave to this question. The reasons considered most important were that the festival is fun and the sense of nature or conservation issues. The majority of respondents considered the festival being located in Bristol as an important reason; however this proportion has decreased, potentially due to the wider reach of the festival mentioned previously.

Table 7: Reasons why people visited the Festival of Nature and their importance

	Not important (%)	Somewhat Important (%)	Important (%)	Very important (%)	Don't know (%)
Because it is in the city I live in	27.0	10.9	31.7	28.7	1.7
The atmosphere	7.0	15.0	54.2	22.0	1.8
The sense of nature/green /conservation issues	4.7	8.6	42.7	42.2	1.7
The educational programmes	7.8	19.0	40.9	30.2	2.2
The range of exhibits	4.4	9.2	49.1	35.5	1.8
It is a lot of fun	5.2	10.9	35.2	47.4	1.3
It is something to take the whole family to	15.2	9.6	32.6	38.7	3.9
The market	18.3	21.0	27.9	24.9	7.9

Impact on attendees

Table 8 outlines the response to questions regarding the impact of the festival on attendees. The pattern of results is similar to the last two years, with strong responses about how the festival is an enjoyable learning experience and how disappointed people would be if the festival were discontinued. More neutral responses were received about how much people learnt or how they may have changed their opinions. Over 50% of respondents said that they plan to discuss some of the issues outside of the festival, suggesting that the social impact may extend beyond the duration of the festival.

Table 9 looks at the broader social impact of the festival on attendees, the organisations involved and the local community. As before, the levels of agreement with the various statements are similar to those in the previous two years. One again, education and learning, for both adults and children, are highlighted and few people think that the festival is an intrusion into the local community.

Table 8: Respondents' level of agreement with statements about the impact of the festival on themselves

	Strongly Agree (%)	Agree (%)	Neither Agree nor Disagree (%)	Disagree (%)	Strongly Disagree (%)
I think that the festival is an enjoyable way to learn about conservation/sustainability issues	57.4	37.1	3.8	1.3	0.4
I feel I've learned a great deal from the festival	23.6	45.4	19.2	9.2	2.6
Before I came to the festival, I did not know much about conservation/nature /green issues/sustainability	6.1	20.4	17.8	35.2	20.4
The festival has changed the way I feel about conservation/nature/green issues/sustainability	7.1	26.8	23.7	28.6	13.8
I know more about local opportunities for engaging with the natural world	13.7	49.3	18.9	11.5	6.6
I plan to discuss some of the issues raised outside of the festival	15.9	46.0	20.4	11.5	6.2
I would be disappointed if the festival was discontinued next year	55.9	29.3	8.3	2.6	3.9

Table 9: Respondents' level of agreement with statements about the broader social Impact of the festival

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Children who participate in the festival have the opportunity to learn new things	67.2	29.7	2.6	0.0	0.4
Adults who participate in the festival have the opportunity to learn new things	49.6	45.3	3.0	2.2	0.0
The festival enhances the image of the city and the organisations involved	53.0	40.9	5.7	0.0	0.4
The festival contributes to a sense of community well-being	47.3	44.2	7.1	0.4	0.9
The festival contributes to my personal well-being	27.8	48.0	18.8	4.9	0.4
The festival is an intrusion into the lives of community residents	3.9	12.3	6.6	24.1	53.1
The festival provides opportunities for local residents to experience new activities	39.9	52.6	6.1	0.9	0.4

Environmental Impact

As well as the social impact, the survey also looked to capture aspects of the environmental impact of the festival – focusing on the attendees. The increase in knowledge about the environment is a key impact, as described in Table 8 – with 69.0% of respondents feeling that they had learnt a great deal from the festival and 63.0% saying that they were more aware of local opportunities to engage with the natural world. There is also some suggestion of changing attitudes and behaviour, with 61.9% of respondents planning to discuss some of the issues raised outside of the festival and 33.9% saying that it has changed the way they feel about nature and green issues. The comparatively low figure for the latter may not be due to a lack of interest, but instead that respondents are already engaged and knowledgeable about the environment.

The survey also captured how the respondents travelled to the festival, as shown in Figure 3. Whilst the majority of people used a more environmentally friendly method of transport (per person), 40% of respondents drove to the festival. The proportion of people taking the bus doubled from 2012.

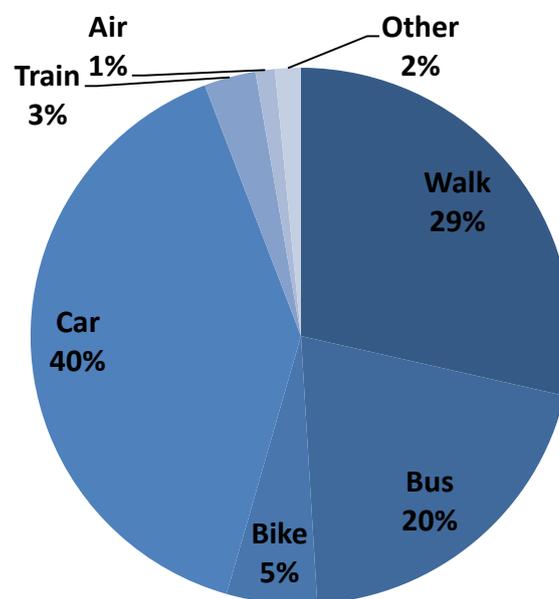


Figure 3: Method of transport to the festival

Economic Impact

There are a number of groups that will experience benefits from attending or being part of the Festival of Nature – these include the festival goers, local residents, volunteers and exhibitors. Within the cost-benefit analysis of the festival, the benefits to attendees and the wider local economy are the focus of the analysis.

The simplest analysis is to look at the expenditure of the respondents on food, drinks and miscellaneous items at the festival, as shown in Table 10. This expenditure will have a direct and positive impact on traders and businesses providing these services.

Table 10: Details of respondents' expenditure at the festival

Amount spent	Nothing (%)	£1 - £5 (%)	£6 - £10 (%)	£11 – £20 (%)	£20 - £30 (%)	£30 - £40 (%)	£40 - £50 (%)	Above £50 (%)	Average expenditure
Food	44.0	17.3	20.4	12.0	3.1	1.8	0.9	0.4	£5.83
Drinks	52.2	27.3	16.7	2.4	0.5	1.0	0.0	0.0	£2.75
Miscellaneous items	61.5	17.5	13.0	6.0	1.5	0.5	0.0	0.0	£2.86

The average spend per day by the visitors is £11.44; attendees estimated that they would normally spend an average of around £20 a weekend so this figure does not constitute a significant change from normal expenditure (assuming that most people only go to the festival on one day). The average expenditure at the festival can be used to derive the value of total spending by festival goers. This is equal to the average total spending per person multiplied by the estimated attendance. From the results of the survey, the average number of people per party was 2.68, which needs to be included in the estimate.

Estimated total spending by attendees = £11.44/2.68 x 12,414= £52,991

To take account of secondary benefits from spending (*i.e.* the impact on local businesses) a spending multiplier can be applied. Taking the estimate of 1.38 used last year, the total value of spending by festival goers to the local economy is £52,991 x 1.38 = £73,128.

Willingness to Pay

Another way of estimating the economic value of the festival is to look at people's willingness to pay. A question on the survey set up a hypothetical case for respondents to pay through Council tax, making it clear that this was a theoretical example and would not be used to introduce an entrance fee. Table 10 outlines the amount that respondents are willing to pay to attend the festival.

Table 10: Details of hypothetical scenario showing how much respondents would be willing to pay for the Festival of Nature in a year through their Council tax

Amount willing to pay	Proportion of respondents (%)
£0.00	12.1
£1.00	8.5
£2.00	14.3
£3.00	8.5
£4.00	4.0
£5.00	23.2
£6.00	6.3
Over £6.00	23.2
Average	£4.20

The responses indicate that on average, festival goers are willing to pay £4.20 through Council tax towards the festival. The average is based on the mid-point from each band and an estimate for the over £6 margin. The estimated value therefore of the festival, based upon the hypothetical case, is equal to the average multiplied by the number of attendees.

Estimated value = £4.20 x 12,414 = £52,139

Economic Analysis

In order to create a robust analysis, the direct cost of the festival needs to be used as a comparative tool. The direct cost of staging the festival was approximately £65,000 (data provided by the BNHC). The BNHC also estimate that an additional £21,000 was provided in in-kind support. From the two methods used above, the value of the festival to attendees and participants can be considered to be in the region of £52,139-£73,128.

It is most likely that there are other intangible economic benefits that would add to the value estimation such as the value to exhibitors and volunteers. The evaluation of the festival did not look to capture benefits to the volunteers and exhibitors for practical reasons (such as the lack of data available and time constraints). However, considering the decision to participate is voluntary, one can assume that there are direct benefits to the cost of the time being used, such as the experience gained. Therefore, we can assume that the overall benefit figure will most likely exceed the approximated direct cost of the festival.