

Consuming the Environment – A Study of Those Utilising the Natural Environment for Recreational Activities



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1. Introduction

This document presents the initial summary results from the *Consuming the Environment* research project, which collected data from 445 respondents, exploring the lifestyle choices of those that use the natural environment for their recreational activities. The survey, conducted in late 2011, targeted members of outdoor recreation associations and general members of the public interested in using the natural environment for their leisure activities.

This report presents the initial findings in the form of summative tables and statistics. Later reports will present more advanced statistical analysis. Researchers are welcome to use the data presented in summary here as long as they cite the data as

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We gratefully acknowledge the funding assistance of the British Academy who sponsored this research (Ref SG2009). We would also like to thank all of the respondents who completed the questionnaire, and the membership groups that agreed to distribute information on the survey in their newsletters, web pages and facebook pages.

If you would like to contact us to discuss the findings you can reach us on either d.holt@qub.ac.uk or p.mccole@qub.ac.uk

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2. Overview of Respondents

There were 445 valid responses in total, from a wide range of individuals. There was a slight gender bias with more men responding than women. Ages ranged from 16-80 with a good spread across the different age categories (Table 1). Just over half the respondents (55.9%) had children or grandchildren.

Table 1: Respondent characteristics

Gender	Number	Valid %	Age	Number	Valid %
Male	297	66.7	16-20	8	1.8
Female	148	33.3	21-30	49	11.0
			31-40	90	20.2
			41-50	127	28.5
			51-60	109	54.5
			61-80	62	13.9

Respondents lived in 270 different towns from across the UK and the Republic of Ireland (RoI), with a further 8 respondents based in an overseas location. Respondents were born in a wide range of countries (25 in total) with 86% born in the UK, 7% from RoI, and 7% international (Table 2).

Table 2: Country of Birth (n=445)

United Kingdom	383	International	29		
<i>Great Britain</i>	5	<i>Australia</i>	2	<i>Malta</i>	2
<i>United Kingdom</i>	129	<i>Canada</i>	1	<i>Netherlands</i>	1
<i>England</i>	125	<i>Cyprus</i>	1	<i>New Zealand</i>	1
<i>Wales</i>	17	<i>Czech Rep</i>	1	<i>Singapore</i>	1
<i>Scotland</i>	45	<i>Finland</i>	2	<i>South Africa</i>	3
<i>Northern Ireland</i>	62	<i>France</i>	3	<i>Switzerland</i>	1
		<i>Germany</i>	1	<i>Tanzania</i>	1
Republic of Ireland	29	<i>Iran</i>	1	<i>Turkey</i>	1
		<i>Kenya</i>	2	<i>USA</i>	1
Unknown	4	<i>Malaysia</i>	2	<i>Zimbabwe</i>	1

Two-thirds of the sample was in waged employment, with a further 26% retired and 3% self-employed. Home workers, carers, students and voluntary workers were also represented in the sample (Table 3).

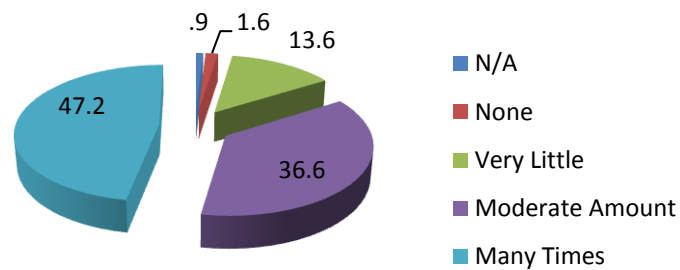
<i>Table 3: Primary Occupation</i>	Number	%	Number	%
Employed (full/ part time)	294	66.1	Self employed	14 3.1
Retired	63	25.7	Other	8 1.8
Student	27	6.1	Working in voluntary capacity (unpaid)	7 1.6
Carer or homemaker	18	4.0	Currently seeking work	14 3.1

3. Exposure to environmental matters

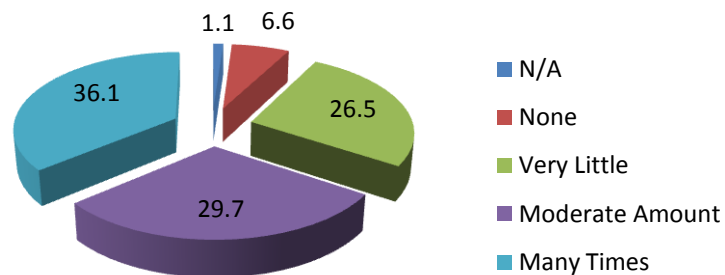
Table 4: Exposure to environmental education

Have you studied anything about the natural environment? [0 = None, 1= Very Little, 2= Moderate Amount and 4 = Many Times]		At School	At College	At my University	I watch documentaries on the natural environment	I read magazines or books about the natural environment	I read magazines or books about my specific outdoor interest(s)
N	Valid	432	381	408	434	438	439
	Missing	13	64	37	11	7	6
Mean		2.62	1.53	1.98	3.28	2.93	3.43
Median		3.00	1.00	2.00	3.00	3.00	4.00
Mode		3	1	1	4	4	4
Std. Deviation		.870	1.313	1.379	.825	.995	.885
Skewness		-.239	.581	.310	-1.122	-.543	-1.638
Std. Error of Skewness		.117	.125	.121	.117	.117	.117
Kurtosis		-.391	-.811	-1.267	1.337	-.504	2.326
Std. Error of Kurtosis		.234	.249	.241	.234	.233	.233

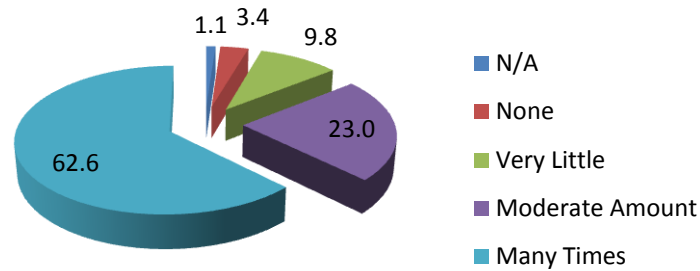
3.1 I watch documentaries on the natural environment(%)



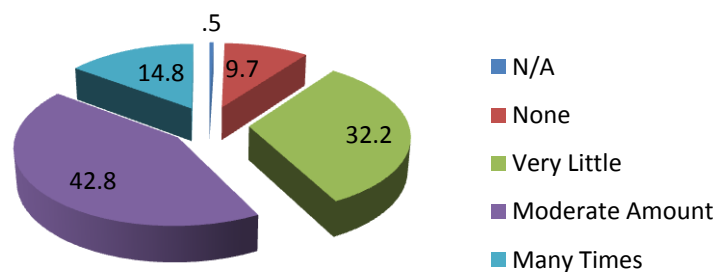
3.2 I read books about the natural environment (%)



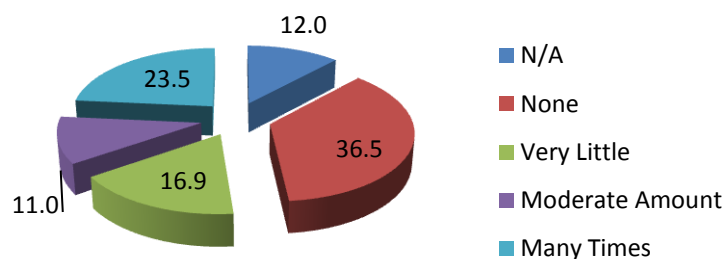
3.3 I read books about my specific outdoor interest (%)



3.4 I studied about the natural environment at School (%)



3.1 I studied about the natural environment at University (%)



The majority of respondents appeared to gain information on the natural environment through documentaries with 83.8% indicating a moderate or larger exposure to information on the natural environment through this medium. In addition 85.6% stated that they read specific books about their chosen areas of interest in the outdoor/natural environment. Almost two thirds also read general books on the natural environment (65.8%). There is evidence of a reasonable level of exposure to issues about the natural environment through schooling (57.6) but we should also consider the age distribution of the respondents where the older respondents are less likely to have experienced the environmental education

campaigns embedded in the school curriculum. Almost 40% experienced environmental education to at least a moderate extent at university (when adjusted for the 12% where this was not applicable due to their non-attendance at university).

4. What activities associated with the natural environment are people interested in?

Respondents indicated which of the following activities they would be interested in (if cost was not an issue). A number of respondents had been on holidays where they experienced the activity. For instance 44% had been on a walking holiday, 39% skied/snowboarded, and 39% backpacked or had been on an expedition. Horse riding was not particularly popular. However, social project holidays were popular with 52% showing interest. Such work holidays were also mentioned in the additional responses including conservation work holidays.

Table 5: Interest in various types of outdoor holidays

	Do NOT want to	Not very interested	Might like to	Interested	Really interested	Have been already	Total
Walking Holiday	3.2	7.4	10.8	15.9	18.6	44.1	435
Skiing or snowboarding	11.8	13.2	12.5	9.3	14.1	39.1	432
A backpacking trip or overland expedition	3.7	8.5	11.3	16.8	20.7	39.1	435
Cycling Holiday	7.8	12.2	14.7	21.6	20.5	23.2	435
Scuba & snorkelling	18.8	12.3	16.9	13.0	16.9	22.2	432
Visit to a game/safari lodge where you viewed wild animals	5.0	10.8	17.0	14.4	31.4	21.3	436
Whale Watching	3.7	8.7	15.6	21.3	30.7	20.0	436
Extreme adrenaline sports e.g. sky diving and bungee jumping	29.6	21.8	12.0	11.0	11.5	14.1	426
A social project holiday like building houses	19.3	23.5	26.3	15.9	10.3	4.7	429
Ecotourism Holiday	7.6	18.0	28.1	23.7	18.2	4.4	434
Horse riding holiday	30.7	25.6	21.2	9.7	9.2	3.5	433

Respondents also indicated other activities not listed they were interested in. A wide range of responses was received including orienteering (53 responses), canoeing or kayaking (32), caving (20), gliding- hang/para (23), kitesurfing (20), rock climbing, conservation holidays, triathlon, fell running, mountain biking, sailing, photography, motorcycling and hiking.

5. What motivates people to undertake activities outdoors?

Table 6 explores the motivation for those undertaking outdoor activities based on a scale of: 1= Not important, 2 = One of a number of motivations, 3 = Important, 4 = the main reason.

Table 6: Factors motivating participation

		Mean	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
To enjoy the natural environment	438	3.17	.711	-.417	.117	-.413	.233
To exercise for fitness	435	2.81	.788	-.211	.117	-.417	.234
I find it peaceful	428	2.63	.855	-.239	.118	-.538	.235
Other not listed	168	2.61	1.224	-.222	.187	-1.540	.373
To spend time with my friends/family	433	2.52	.800	.060	.117	-.460	.234
Gives me a chance to think or reflect	432	2.52	.812	-.183	.117	-.476	.234
To gain a thrill and get my adrenaline pumping	427	2.05	.890	.431	.118	-.658	.236
To walk the dog	407	1.45	.832	1.676	.121	1.587	.241

Fitness and general enjoyment were the two main reasons identified. A number of other themes emerged in the additional commentary. One of the most prevalent was the idea of competition, especially from the orienteers in the sample. Some commented on the idea of physical and mental challenges, but not from the perspective of thrill seeking, more from the idea of challenging oneself to do better, go faster, and acquire new skills as a form of personal satisfaction.

Others mention stress relief, escaping from the pressures of work, being away from other people or to spend time with likeminded people and friends. The theme of having an opportunity to be reflective, to think and gain perspective was also mentioned frequently, described by one respondent as *"contemplative recreation."* Another person stated *"It is hard to articulate – I feel at home when I am on the water, at peace and lucky to be alive"*.

6. Assessing the frequency of outdoor recreational activities

Respondents were asked to score their involvement in actual outdoor activities based on the following scale: 1=Never, 2= Not for at least 4 years, 3= Every 2-3 years, 4= At least once a year, 5= Every few months, 6= Monthly, 7= Weekly, 8= Daily.

Table 7 illustrates the main outdoor activities the respondents undertook. The most frequent were associated with walking, either in local parks, rivers, in town or in protected areas (all with a modal value of 7 and a mean of at least 5). Much less frequent were the activities of hunting, fishing, scuba diving or staying at ecotourism sites (all with means of less than 2).

In addition to the activities mentioned in the survey respondents were also able to enter additional details. There were 36 respondents who mentioned some form of orienteering. A further 35 also mentioned cycling either on the road, along trails or mountain biking. Forms of challenging running and walking were also mentioned by 24 respondents who described fell running, long distance walking and trail running. Caving (15), Kitesurfing (17) and paragliding or hang gliding (15) was also mentioned. A further 11 described various forms of ecological surveys, wildlife watching, bird watching and volunteer conservation projects. Rock climbing or scrambling was also described (7) along with canal boating, caravanning and camping.

Table 7: Frequency of selected outdoor activities

	N		Mean	Med-ian	Mode	Std. Dev.	Skew-ness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
	Valid	Missing								
Walk in the local woods or along local rivers	426	19	6.21	7	7	1.40	-1.47	0.12	3.20	0.24
Walk in local parks in my town	417	28	5.47	6	7	2.02	-1.08	0.12	0.26	0.24
I take care of my garden	426	19	5.37	6	7	2.42	-0.92	0.12	-0.61	0.24
Walk or hike in a National Park, Nature Reserve or protected natural area	427	18	5.13	5	5	1.37	-0.74	0.12	1.03	0.24
Visit a beach to walk	428	17	4.95	5	5	1.39	-0.16	0.12	0.43	0.24
Visit a beach to swim or watch the sea	424	21	4.47	5	4	1.68	-0.30	0.12	-0.11	0.24
I visit gardens (like the National Trust gardens, or botanical parks)	425	20	4.10	4	5	1.49	-0.63	0.12	-0.30	0.24
Go camping	423	22	3.82	4	4	1.60	-0.30	0.12	-0.92	0.24
Mountain climb	427	18	3.76	4	1	1.94	-0.07	0.12	-1.15	0.24
I grow my own vegetables in my garden or allotment	424	21	3.61	2	1	2.83	0.42	0.12	-1.54	0.24
Wildlife or Nature Photography	425	20	3.45	3	1	2.27	0.29	0.12	-1.37	0.24
Canoe or Kayak	423	22	2.83	2	1	1.98	0.98	0.12	-0.16	0.24
Visit to a zoo or safari park	425	20	2.55	2	2	1.35	0.80	0.12	0.24	0.24
Go on nature trips to learn about birds, animals and plants	422	23	2.44	2	1	1.64	1.04	0.12	0.32	0.24
Ski or snowboard	423	22	2.27	2	1	1.48	1.19	0.12	1.14	0.24
Sail on a river or the sea	420	25	2.22	2	1	1.62	1.53	0.12	1.59	0.24
Learn outdoor survival skills	418	27	2.19	2	1	1.55	1.33	0.12	1.12	0.24
Scuba Dive or Snorkel	420	25	1.83	1	1	1.22	1.68	0.12	2.71	0.24
Fish on rivers, lakes or the sea	423	22	1.74	1	1	1.41	2.30	0.12	4.88	0.24
Stay at ecotourism hotel or lodge	417	28	1.42	1	1	0.98	3.07	0.12	11.11	0.24
Hunt or shoot animals	421	24	1.21	1	1	0.85	5.02	0.12	27.81	0.24

7. Assessing core values

In this section we consider the various social values that the respondents endorsed in their lives. These values are based on the List of Values scale (LOV) adapted from Kahle (1983)¹, (Kahle, 1988)² and more recently by Gurel-Atay *et al.* (2010)³. The original LOV scale was developed in 1976 based on Rokeach's (1973)⁴ list of 18 terminal values and Maslow's (1954)⁵ hierarchy of needs.

The nine LOV constructs were included and respondents were firstly asked to rank each one on a scale from 1= very unimportant to 9 = very important, as detailed in section 6.1. Then respondents were asked to indicate which of the nine were the most important as detailed in section 6.2.

7.1 Core values compared

Table 8: Assessing core social values based on LOV scale

	N		Mean	Median	Mode	Std. Dev	Skewness (S)	Std. Error (S)	Kurtosis (K)	Std. Error (K)
	Valid	Missing								
Fun and enjoyment in life	425	20	7.55	8	9	1.72	-1.90	0.12	4.12	0.24
A sense of accomplishment	425	20	7.52	8	8	1.66	-1.99	0.12	4.70	0.24
Self respect	424	21	7.31	8	9	1.86	-1.54	0.12	2.38	0.24
Self fulfilment	424	21	7.30	8	9	1.73	-1.51	0.12	2.59	0.24
Warm relationships with others	424	21	6.87	7	9	1.93	-0.99	0.12	0.69	0.24
Being well respected	425	20	6.25	7	7	1.97	-0.77	0.12	0.19	0.24
Sense of belonging	425	20	6.15	6	7	2.18	-0.47	0.12	-0.55	0.24
Security	425	20	6.06	6	7	2.09	-0.62	0.12	-0.19	0.24
Excitement	425	20	5.80	6	7	1.95	-0.48	0.12	-0.13	0.24

All nine of the social values in the LOV scale scored as important (greater than 5) but 'fun and enjoyment' was considered the top value, followed by 'a sense of accomplishment'.

¹ Kahle, L.R. (1983). *Social Values and Social Change: Adaptation to Life in America*. New York: Praeger.

² Kahle, L. R., Poulos, B. and Sukhdial, A. (1988). Changes in Social Values in the United States During the Past Decade. *Journal of Advertising Research*, 2(1): 35-41

³ Gurel-Atay, E., Xie, G.X., Chen, J., and Kahle, L.R. (2010). Changes in Social Values in the United States: 1976-2007 "Self-Respect" Is on the Upswing as "A Sense of Belonging" Becomes Less Important. *Journal of Advertising Research*, 50(1): 57-67

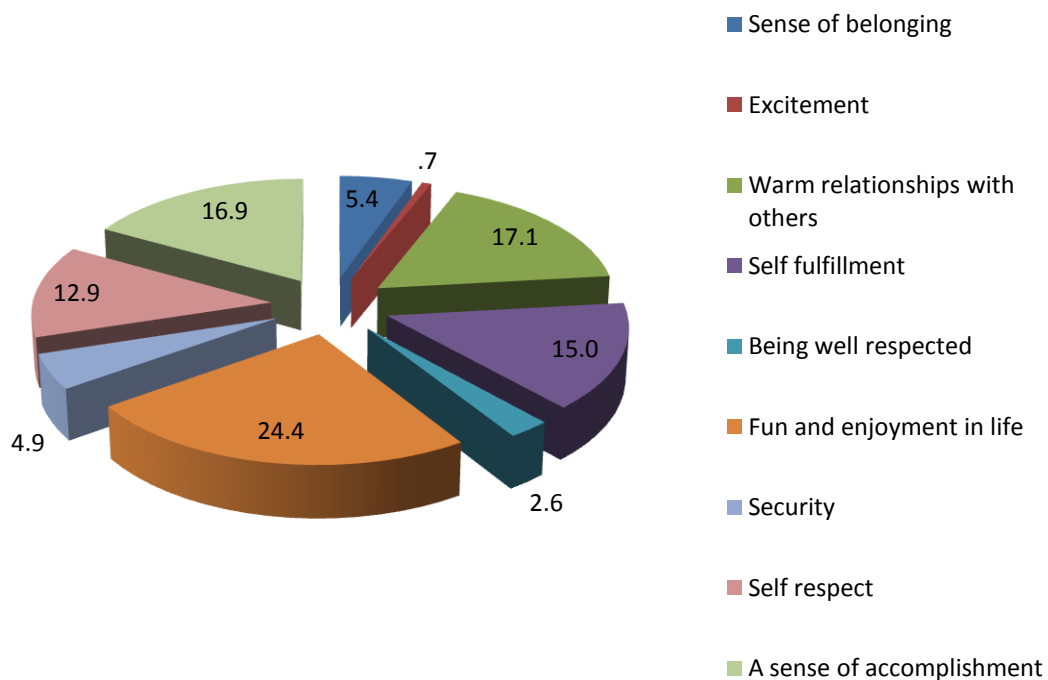
⁴ Rokeach, M. (1973) *The Nature of Human Values*. New York: Free Press.

⁵ Maslow, A.H. (1954). *Motivation and Personality*. New York: Harper & Row.

7.2 Assessing the most important social value (%)

Table 9 indicates that 23.4% of the sample identified 'fun and enjoyment' as the most important social need they endorsed, followed by a 'warm relationship with others' (16.4%) and 'a sense of accomplishment' (16.2%).

<i>Table 9: Most important LOV</i>	Frequency	Percent	Valid Percent
Fun and enjoyment in life	104	23.4	24.4
Warm relationships with others	73	16.4	17.1
A sense of accomplishment	72	16.2	16.9
Self fulfilment	64	14.4	15.0
Self respect	55	12.4	12.9
Sense of belonging	23	5.2	5.4
Security	21	4.7	4.9
Being well respected	11	2.5	2.6
Excitement	3	.7	.7
Total	426	95.7	100.0
<i>Missing</i>	19	4.3	



8. Important lifestyle factors

The lifestyle factors we explored are based on the principles of voluntary simplicity and drew on the following:

- The 18 items scale developed from studies in California (Leonard-Barton, 1981)⁶ and
- The 20 items scale which considers environmental consumption patterns, developed by Sanchez *et al.* (1998)⁷ and reported in Fraj & Martinez (2006)⁸; and
- The 21 practices associated with voluntary simplicity lifestyle clustered into 6 themes built from literature by Huneke (2005)⁹.

Each respondent was asked to rate the importance of each item to how they manage their lifestyle based on a scale from 1-5 where 1= Not important at all, 2= Not really important, 3= Neither, 4= Important, 5 = Very Important.

Table 10: Importance of voluntary simplicity lifestyle choices (means)

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
Recycling my rubbish	423	22	4.18	4	4	0.83
Working at a satisfying job	419	26	4.07	4	4	1.00
Buying environmentally friendly products	424	21	3.63	4	4	0.86
Buying from local merchants	424	21	3.56	4	4	0.88
Being friends with neighbours	421	24	3.53	4	4	1.00
Buying from socially responsible producers	422	23	3.45	4	4	0.93
Buying locally grown produce	424	21	3.44	4	4	0.94
Avoid impulse purchases	422	23	3.33	4	4	1.13
Eliminating clutter	424	21	3.28	3	4	1.01
Limiting car use	424	21	3.28	3	4	0.97
Being active in the community	423	22	3.26	3	4	1.04
Composting	422	23	3.08	3	4	1.30
Limiting exposure to adverts	421	24	3.07	3	3	1.17
Limiting/eliminating TV	423	22	2.91	3	3	1.14
Buying organic foods	423	22	2.64	3	3	1.13
Limiting wage-earning work	416	29	2.44	3	3	1.03
Making rather than buying gifts	424	21	2.35	2	3	1.06
Maintaining a spiritual life	424	21	2.28	2	1	1.35
Being politically active	422	23	2.17	2	1	1.11
Eating a vegetarian diet	423	22	1.83	1	1	1.21

⁶ Leonard-Barton, D. (1981). Voluntary Simplicity Lifestyles and Energy Conservation. *The Journal of Consumer Research*, 8, 243-252.

⁷ Sanchez, M., Grande, I., Gil, J.M. and Rodriguez, A. (1998). Evaluación del potencial de mercado de los productos de agricultura ecológica. *Revista Española de Investigación de Marketing ESIC*, March, 135-50.

⁸ Fraj, E. and Martinez, E. (2006). Environmental values and lifestyles as determining factors of ecological consumer behaviour: an empirical analysis. *Journal of Consumer Marketing*, 23: 133–144.

⁹ Huneke, M.E. (2005). The face of the un-consumer: an empirical examination of the practice of voluntary simplicity in the United States. *Psychology and Marketing*, 22: 527-550.

The mean scores reported in Table 10 mask some interesting polarised views. Opinions are divided on many of these items as Table 11 indicates.

Table 11: Important vs unimportant lifestyle choices

Lifestyle Actions	Important to some degree (%)	Not important to some degree (%)	1 Not Imp	2	3 Neither	4	5 V.Imp	Total
Recycling my rubbish	86.1	4.3	1.7	2.6	9.7	48.5	37.6	423
Working at a satisfying job	83.5	8.8	4.3	4.5	7.6	47.3	36.3	419
Buying environmentally friendly products	64.9	10.4	2.1	8.3	24.8	54.7	10.1	424
Buying from local merchants	63.4	13.9	2.1	11.8	22.6	55.0	8.5	424
Being friends with neighbours	62.7	15.0	5.7	9.3	22.3	51.5	11.2	421
Buying from socially responsible producers	55.2	16.4	2.8	13.5	28.4	46.2	9.0	422
Buying locally grown produce	55.0	15.1	4.0	11.1	30.0	46.5	8.5	424
Avoid impulse purchases	50.9	25.6	6.2	19.4	23.5	36.7	14.2	422
Eliminating clutter	47.2	24.1	3.8	20.3	28.8	38.4	8.7	424
Limiting car use	46.5	20.3	5.0	15.3	33.3	39.4	7.1	424
Being active in the community	46.3	20.8	7.3	13.5	32.9	38.1	8.3	423
Composting	44.5	33.4	16.8	16.6	22.0	31.3	13.3	422
Limiting exposure to adverts	34.9	29.0	11.6	17.3	36.1	22.1	12.8	421
Limiting/eliminating TV	28.8	34.8	12.8	22.0	36.4	19.1	9.7	423
Buying organic foods	25.3	42.1	21.7	20.3	32.6	22.7	2.6	423
Maintaining a spiritual life	21.2	58.5	43.2	15.3	20.3	13.0	8.3	424
Limiting wage earning work	13.2	46.6	24.5	22.1	40.1	11.8	1.4	416
Making rather than buying gifts	13.0	52.8	26.9	25.9	34.2	10.8	2.1	424
Being politically active	12.8	61.8	36.7	25.1	25.4	10.2	2.6	422
Eating a vegetarian diet	11.3	73.3	60.3	13.0	15.4	5.7	5.7	423

The shaded areas indicate where at least 50% of the respondents indicated that this activity was important or unimportant to some degree (excluding those that selected indifference). These findings suggest our respondents were not particularly interested in being politically active, vegetarians, spiritual or making items rather than buying. They were predominantly more likely to buy local, purchase environmentally responsible goods, seek a satisfying job, be friendly with neighbours and recycle.

In further work we will explore how these different activities relate to the respondents personal characteristics and their core social/environmental values.

9. Assessing core values

In this section we consider various sustainability-related attitudinal statements based predominantly on Straughan and Roberts (1999)¹⁰. The items were also extended by including ecocentric^I and technocentric^{II} statements from Holt and Antony (2000)¹¹. Respondents indicated their agreement or disagreement using a scale of 1= Strongly disagree, 2= Disagree, 3= Neither agree or disagree, 4= Agree and 5= Strongly agree.

The mean score for the attitudinal statements (please see Table 12) suggested broad agreement with the sustainability related statements. Given the very broad spread of respondents this is perhaps surprising but does generally suggest a societal level of agreement with sustainability attitudes reflecting the discourse in society at this time. Interestingly though both items relating to economic issues scored 2.9 and 3.1 indicating neither agreement nor disagreement. Many of the attitudinal statements had an ecocentric theme and again the averages suggest a dominance of an ecocentric paradigm

These means do obviously mask differences between groups, which will be considered in future analysis.

¹⁰ Straughan, R.D., and Roberts, J.A. (1999). Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of Consumer Marketing*, 16: 558–575.

¹¹ Holt, D. and Anthony, S. (2000). Exploring Green Culture in Nortel and Middlesex University, *Eco Management and Auditing*, 7(3): 143-154.

Table 12: Sustainability related attitudinal statements

	N	Mean	Median	Mode	Std. Dev.	Skewness (S)	Std. Error (S)	Kurtosis (K)	Std. Error (K)
We owe a duty to future generations to preserve the environment ⁱ	412	4.5	5	5	0.65	-1.40	0.12	2.59	0.24
We have a duty to other people as well as to our families ⁱ	412	4.4	4	5	0.68	-1.09	0.12	1.83	0.24
People are severely abusing the environment.	411	4.2	4	5	0.87	-1.26	0.12	1.71	0.24
A fair society is better than a rich society ⁱ	413	4.2	4	4	0.80	-0.84	0.12	0.44	0.24
We should live in harmony with nature even if it means some sacrifices on our part ⁱ	410	4.2	4	4	0.75	-0.74	0.12	0.62	0.24
Humans must live in harmony with nature in order to survive.	412	4.1	4	4	0.83	-0.85	0.12	0.61	0.24
The earth is like a spaceship with only limited room and resources.	413	4.1	4	4	0.90	-0.87	0.12	0.32	0.24
The balance of nature is very delicate and easily upset.	413	4.0	4	4	0.92	-0.91	0.12	0.65	0.24
We have no choice: we have to protect the environment or we will destroy the human race ⁱ	412	3.9	4	4	0.93	-0.62	0.12	-0.07	0.24
When humans interfere with nature, it often produces disastrous consequences.	413	3.9	4	4	0.86	-0.50	0.12	-0.19	0.24
There are limits to growth beyond which our industrialized society cannot expand.	411	3.9	4	4	0.91	-0.84	0.12	0.68	0.24
We are approaching the limit of the number of people the earth can support.	413	3.9	4	4	1.04	-0.66	0.12	-0.34	0.24
To maintain a healthy economy, we will have to develop a steady-state economy where industrial growth is controlled.	409	3.6	4	4	0.97	-0.38	0.12	-0.40	0.24
The most important problems today are the threats to the environment ⁱ	410	3.4	3	4	1.01	-0.24	0.12	-0.52	0.24
It is okay to use animals for medical research in a humane manner ⁱⁱ	412	3.2	3	4	1.13	-0.51	0.12	-0.64	0.24
Without economic growth, our country will not be able to do the things we want ⁱⁱ	410	3.1	3	4	0.99	-0.32	0.12	-0.54	0.24
The most important problems today are economic problems, like inflation and unemployment ⁱⁱ	412	2.9	3	3	0.92	-0.03	0.12	-0.51	0.24
Humans have the right to modify the natural environment to suit their needs.	410	2.4	2	2	0.99	0.32	0.12	-0.54	0.24
Scientists will always be able to find the solution to the problems caused by humankind ⁱⁱ	412	2.2	2	2	0.91	0.64	0.12	0.18	0.24
Humans need not adapt to the natural environment because they can remake it to suit their needs, or use technology to fix it	413	2.0	2	2	1.04	1.02	0.12	0.41	0.24
Plants and animals exist primarily to be used by humans.	413	2.0	2	1	0.96	0.82	0.12	0.21	0.24
Humans were created to rule over the rest of nature.	413	1.7	1	1	0.94	1.39	0.12	1.42	0.24

i ecocentric ii technocentric (adapted from Holt and Antony, 2000)

10. Using second-hand outlets

10.1 Second-hand channels

A key element of resource wise use is the recycling of goods at either end of life or when they still have some utility. We also considered whether respondents purchased, or search for items from second-hand outlets to see if this was a common lifestyle choice. Each respondent indicated how frequently they used various second-hand channels, on a scale of 1= Never, 2= Rarely, 3= Occasionally (every 2-3 months), 4= On average at least once a month, 5= Very frequently - probably weekly.

As Table 13 indicates eBay and charity shops are used the most. The mode and median indicate that these choices, especially eBay are used the most by the majority. Whereas Freecycle, car boot sales and Gumtree are obviously the choice of the minority.

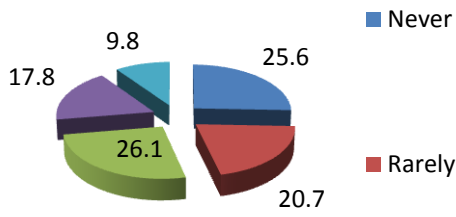
Table 13: Use of second-hand outlets

		Mean	Median	Mode	Std. Deviation
From Ebay	410	2.65	3	3	1.298
From a charity shop	409	2.48	2	2	1.091
From Freecycle or another free recycling site	406	1.69	1	1	1.014
From a car boot sale	407	1.65	1	1	.808
From Gumtree	407	1.50	1	1	.907

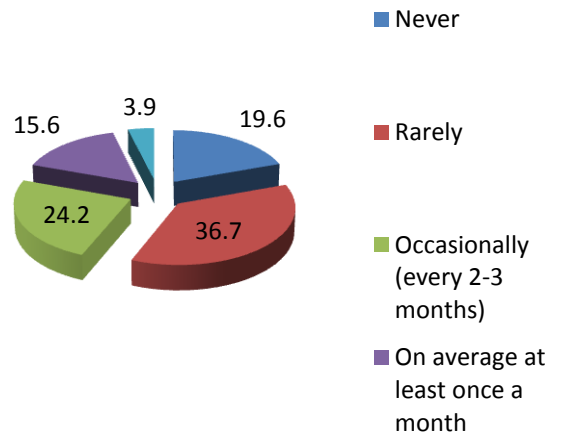
As the diagrams indicate (please see next page) there are almost 30% of respondents who use eBay and charity stores at least once a month, whereas 6% or less uses the other outlets.

Respondents also indicated other outlets they use and these included employer's intranet bulletin board, for sale sections on forums, gardening and other club sales tables, jumble sales, local auction, local paper and second-hand outdoor equipment sources. Multiple responses were also indicated for items thrown away at the tip (dump) and in skips (2), Amazon resellers (4), second-hand bookshops (5), and items given away free from relatives or friends (6).

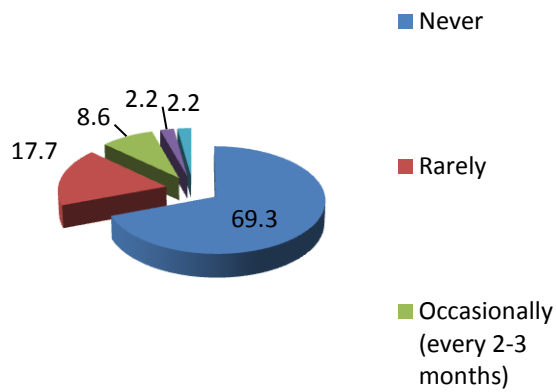
eBay (%)



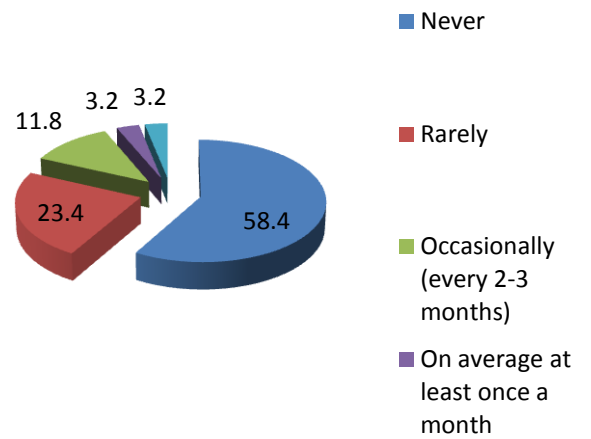
Charity Shop (%)



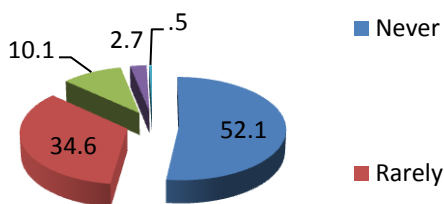
Gumtree (%)



Freecycle or other free recycling site (%)



Car Boot (Garage) Sale (%)



10.2 Nature of items purchased second-hand

We also considered how frequently respondents bought certain items second-hand, based on a scale of 1= Never, 2= Rarely, 3= Occasionally (every 2-3 months), 4= On average at least once a month, 5= Very frequently - probably weekly.

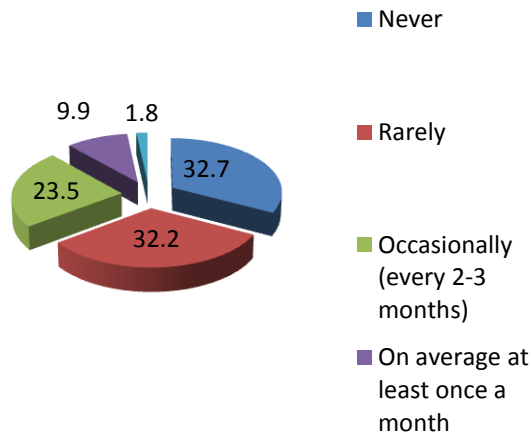
Table 14: Average frequency of use of various purchasing channels for used goods

	Number	Mean	Median	Mode	Std. Deviation
Books	398	2.90	3	3	1.06
Clothes	395	2.16	2	1	1.05
Small household items (not electrical)	395	2.10	2	2	0.83
Furniture	393	1.89	2	2	0.71
Electrical items	394	1.88	2	1	0.85

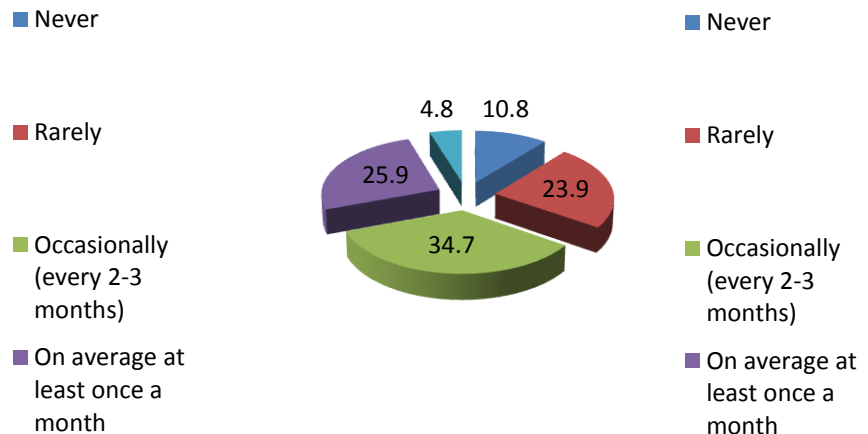
The distribution for each of these is indicated on the following diagrams. Here we can see 69-84% of respondents never, or rarely, buy second-hand furniture, electrical or household items.

Respondents also indicated other items they might buy second-hand and these included multiple responses for Sporting equipment (26); CDs, DVDs, Tapes, records (6); Toys (6); Equipment for hobby (4); Used car or used car parts (4); antiques, artwork and collectables (3); and DIY tools (3). Other single responses included seeds, cardboard boxes, free firewood and tickets.

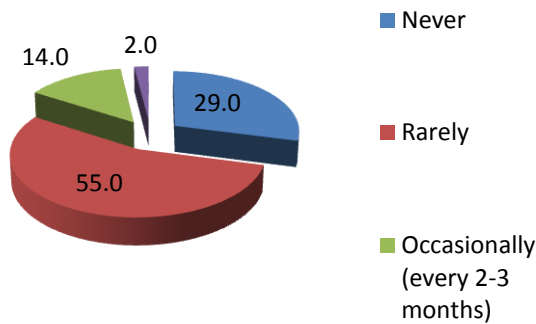
Clothes (%)



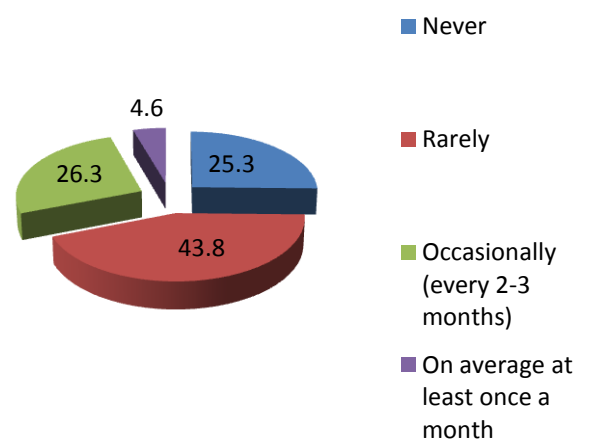
Books (%)



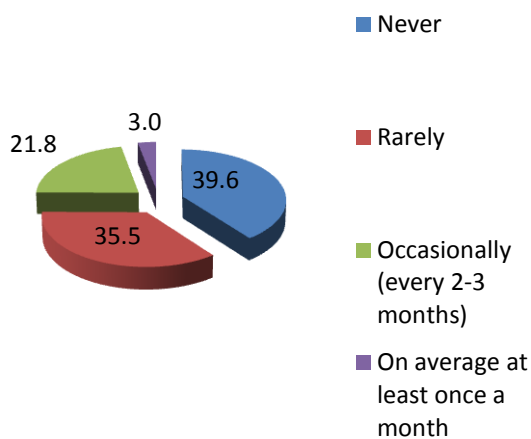
Furniture (%)



Electrical (%)



Small household (not electrical) (%)



11. Tradeoffs between sustainability criteria

One of the most pertinent debates in the sustainability arena is how consumers determine what is a ‘good’ choice; essentially what sustainability attribute do they consider to be the most important. Is it organic, locally sourced, fairtrade, or environmental criteria?¹²

To this end we consider in Table 15 the priority each respondent gave to certain criteria. Respondents were presented with a hypothetical situation of buying strawberries and asked

¹² Hahn, T., Figge, F., Pinkse, J., and Preuss, L. (2010). Trade-offs in corporate sustainability: you can’t have your cake and eat it. *Business Strategy and the Environment*, 19: 217–229.
Holt, D., and Watson, A. (2008). Exploring the dilemma of local sourcing versus international development – the case of the flower industry. *Business Strategy and the Environment*, 17: 318–329.

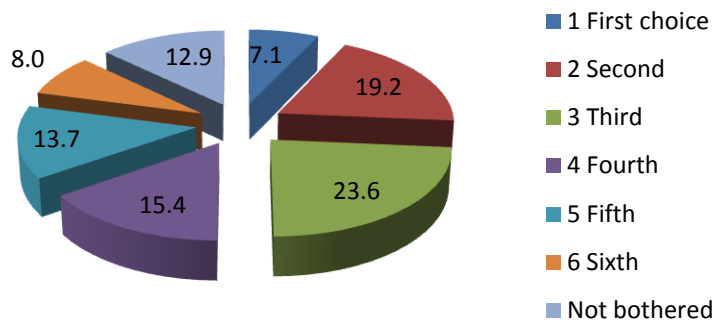
to rank various criteria in rank order of importance. The scale used was: 1=First choice, 2= Second, 3= Third, 4= Fourth, 5= Fifth, 6= Sixth and 7= Not bothered.

In future work we will explore the specific relationships between the various criteria but Table 15 gives a preliminary indication of which options are most popular in terms of mean scores. Here locally grown is the most popular. Interestingly fairtrade scores quite low as does organic.

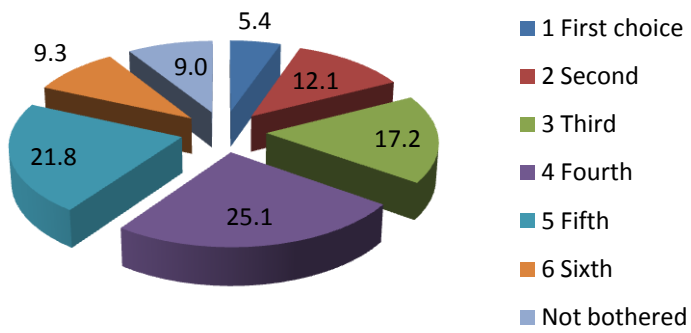
Table 15: Tradeoffs in purchasing attributes

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
The ones grown on a local farm	396	49	1.87	1	1	1.28
The ones with the least packaging	374	71	3.63	3	3	1.50
The ones that were the cheapest	367	78	3.68	3	2	1.91
The ones grown organically	364	81	3.85	4	3	1.80
The ones that were from a fairtrade farm in a developing country	354	91	4.10	4	4	1.59
I would grow my own	336	109	4.06	4	1	2.42

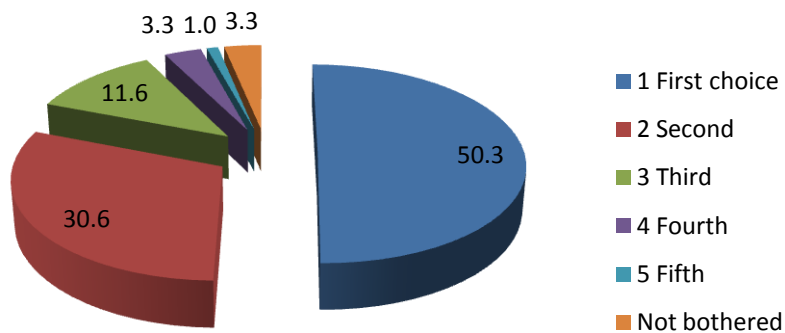
Buying Organic (%)



Buying Fairtrade(%)



Buying local (%)



12. Membership of Outdoor Associations

There were 144 respondents who skipped this question, however 301 indicated their membership or link with specific outdoor associations as detailed below. Some were members of more than one association, society, network, team, or club. As illustrated in Table 16 there were a wide range of outdoor associations represented including regional groups and national associations. Interestingly a number of these are not on the original contact list of outdoor-based organisations we contacted during the distribution of the survey link. The source of these respondents is reflecting in Table 17.

Table 16 Membership of Outdoor Associations

Name of Association/Club	Number
Angling Trust	5
Bees, Wasps and Ants Recording Society (BWARS)	9
British Association of Mountain Guides (BMG)	9
British Association of Nature Conservationists (BANC)	2
British Canoe Union (BCU)	5
British Guide's Association	1
British Kite Surfing Association (BKSA)	32
British Orienteering Federation (BOF)	58
Campaign to Protect Rural England (CPRE)	1
Camping and Caravanning Club	10
Canadian Association of Snowboard Instructors (CASI)	1
Canoe NI	2
Cave Rescue Organisation	1
Chelsea Speleological Society	1
cloudsurferireland.com	1
Countryside Access and Activities Network (CAAN)	1
Game Angling Governing Body	1
Glasgow Tri Club	1
Irish Sea Kayaking Association	15
Long Distance Walkers Association (LDWA)	34
Mountain Leader Training Association	1
Mountaineering Council of Scotland	1
National Trust	5
Open Canoe Association (OCA)	6
Outdoor NI	4
Ramblers	2
Royal Society for the Protection of Birds (RSPB)	1
Scottish Orienteering Association (SOA)	25
Snowsport Wales	1
South and Mid Wales Cave Rescue Team	7
South Wales Caving Club (SWCC)	13
Southampton running sisters	1
Sport, team and competitive kiting UK (STACK)	8
Triathlon Scotland	8
Ulster Hang Gliding and Paragliding Club (UHPC)	20
Wildlife Trust	3

13. How did respondents find out about the survey?

The large number of responses from the survey suggests that using special interest groups and electronic media is a suitable mechanism to reach a wide range of respondents. The survey was posted online using Survey Monkey with a link posted on the home page for the project and then communicated to the various outdoor associations we contacted. The survey link was also spontaneously tweeted and passed along by friends and colleagues. The survey link was also communicated via Facebook pages from associations like Outdoor NI, Canoe NI and the Camping and Caravanning Club. A number of respondents were just browsing organisational websites when they came across the link, even when sometimes they were not members.

Table 17 Source of Respondents

Source	n
From the home page of the association I am a member of	198
From a newsletter or email I was sent	109
From details forwarded by a friend or colleague	38
From online information on an outdoor association, club or special interest website	33
Facebook links	31
Twitter	5

Many of the organisations that agreed to support the survey used extracts from the introductory article we prepared in their electronic newsletters and magazine. Some associations went even further and send out details in emails to members. The support of all the organisations who participated was very much appreciated and we thank them (and their members) for their generosity in spending their time completing the survey.

The organisations that participated were all identified by keyword searches of the internet. A total of 111 organisations were originally identified ranging from national bodies to very small regional groups. Only those that had predominately-adult members were approached. We also excluded all those that were research institutes or similar where they had no members of the public associated with their group. A number of the identified contacts were regional groups of a national association (such as the Ramblers) and were contacted through the national body. Others had out of date contact details or appeared not to function. Once the original list was screened 71 organisations were contacted by phone and/or email. Where possible a person contact was identified who was briefed as to the purpose of the study. An introductory email and potential newsletter article was sent with the survey link.

There were 28 organisations who agreed to host a web link or contact their members, with 7 refusals. The remaining organisations either did not respond or were not suitable. The organisations who participated are shown in Table 18.

Table 18 Participating Organisations

Amateur Entomologists' Society
British Association of Nature Conservationists
British Balloon and Airship Club (BBAC)
British Hang Gliding and Paragliding Association
British Kite Flying Association (BKFA)
British Kite Surfing Association
British Mountain Bike Orienteering (BMBO)
British Orienteering
Canoe NI
Conchological Society of Great Britain and Ireland
Countryside Access and Activities Network (CAAN)
Fell Runners Association
Irish Sea Kayaking Association
Long Distance Walkers Association (LDWA)
Open Canoe Association
OutdoorNI.COM
Scottish Anglers National Association (SANA)
Scottish Orienteering Association
Snowsport Cymru Wales
South and Mid Wales Cave and Rescue Team (SMWCRT)
South Wales Caving Club
The Angling Trust
The Camping and Caravanning Club
The Royal Entomological Society
The UK Bees, Wasps and Ants Recording Society (BWARS)
Triathlon Scotland
Ulster Gliding Club
Welsh Orienteering Association

We would like to thank everyone who agreed to distribute the web link and survey to their members

Appendix : Prize draw arrangements

An independent representative from the Management School generated numbers from 1-445 by using a random number generator. Each number mapped against the case ID in the master SPSS file of survey respondents. More numbers were generated than prizes so that if a winning respondent indicated they did not want to be entered into the draw and were allocated a prize, this was given to the next random number generated. Winners were allocated their preferred prize if still available. When their first choice was gone they were allocated the next available. All prizewinners were notified by email in the week after the survey closed (November 2011). At least two attempts were made to contact each winner using the supplied email address. Once at least 2 months had passed without communication the prize was reallocated to the next winner.

Prizes allocated were

Adoption of a Tiger (1)

Membership of National Trust (1)

Donation of £10 to WWF (3)

Wind up Torch (9)

Amazon gift voucher £10 (12*)

Compass (6)

* includes 3 awarded to pilot study group