



**Health Impacts of the  
John Muir Award**

## ACKNOWLEDGEMENTS

The Glasgow Centre for Population Health (GCPH) funded this research which was conducted by Richard Mitchell and Rebecca Shaw of Glasgow University's Public Health and Health Policy Unit.

A small advisory group provided support and guidance to the research team. Advisory group members comprised:

Rob Bushby (John Muir Trust)

Toby Clark (John Muir Trust)

Fiona Crawford (GCPH)

Nanette Mutrie (Department of Sport, Culture and the Arts, University of Strathclyde)

Helen Sweeting (MRC Social and Public Health Sciences Unit, University of Glasgow)

The research team would like to thank all Award participants and Providers who helped by filling in and administering the questionnaires or by agreeing to participate in focus groups. Without their support and enthusiasm, there could have been no study at all.

A big thank you also to all John Muir Award staff, and Toby Clark and Rob Bushby in particular, for their enthusiasm, contacts, help and patience.

A full research report is available to download from [www.gcph.co.uk](http://www.gcph.co.uk)

The John Muir Award<sup>1</sup> aims to encourage people of all ages and backgrounds to discover, enjoy and conserve the planet's wild places. The Award is the main educational initiative of the John Muir Trust<sup>2</sup> and is delivered through partnerships with youth organisations, schools, clubs etc. The aim of the study, carried out by a team led by Dr Richard Mitchell from the University of Glasgow, was to assess the impact of the John Muir Award on the health-related behaviours, attitudes and aspirations of participants. The study included participants aged between 8 and 18 years, drawn primarily from West and Central Scotland.

## KEY FINDINGS

- Nearly one in 10 participants had never visited a wild place before their Award experience.
- Those living in the poorest circumstances were over six times more likely than the rest of the Award participants to have had no previous experience of wild places.
- The vast majority (95%) of the respondents enjoyed their John Muir Award experience and felt they had achieved something by doing it (92%). Conservation activities, the chance to do new things and the chance to mix with existing friends and make new ones were at the heart of their enjoyment.
- The vast majority of respondents reported that their Award involvement made them want to spend more time outdoors and to visit natural environments more. This was a sustained effect, with 72% of respondents still agreeing that their experience had made them want to spend more time outdoors well after their Award was completed. This impact was particularly strong for Award participants from Scotland's poorest neighbourhoods.
- The Award experience had no clear impact on self-esteem amongst the participants as a whole.
- Participation in the Award had no clear impact on physical activity levels or on attitudes to physical activity.
- Participation in the Award had no clear impact on the frequency with which young people were actually visiting wild places; 62% continued to visit wild places with the same frequency as before.
- There was no difference between boys and girls in terms of attitude to, enjoyment of, and impact of their award experience.
- The cross-cutting nature of the impacts suggests that the Award experience can be closely aligned with three of the government's strategic objectives: a Healthier Scotland; a Smarter Scotland; and a Greener Scotland.

INTRODUCTION

There is growing interest in the salutogenic (i.e. ‘health giving’) properties of ‘outdoor’ environments.<sup>3,5</sup> At the moment however, there is rather more anecdotal than rigorous scientific evidence to show that the outdoors really can help make everyone healthier and that it is not just somewhere that healthy people already go.<sup>6</sup>

A lot of work has already looked at the impacts of ‘outdoor education’ on young people’s development. (We use the term ‘outdoor education’ as shorthand for the wide variety of schemes and experiences via which young people spend time outdoors, in contact with natural environments.) There is much less work specifically focused on whether these experiences have an impact on health or health-related attitudes, opinions and behaviours. We know that people who spend time in natural environments as children are more likely to do so as adults, with their own children.<sup>7</sup> We also know that these environments promote physical activity and relaxation, and that they might also have other health benefits.<sup>8,9</sup>

To gain a John Muir Award, participants must tackle four challenges - discover, explore, conserve and share ‘wild’ places, with a loose and accommodating definition of ‘wild’ which includes everything from park land to remote wilderness. Participants spend an equivalent of at least four days on their Award activity. For much of this time they are outside, in contact with nature. The Award scheme is particularly adept at including young people from disadvantaged backgrounds. This group, who are often difficult to reach for conventional health promotion activities, are also those most likely to experience health problems in later life.



## AIMS AND PURPOSE

The study aimed to assess the impact of the John Muir Award experience on the health-related behaviours, attitudes and aspirations of the participants. The purpose of this study was to determine the answers to the following question:

*Does participation in the John Muir Award significantly alter young people's health-related attitudes, behaviours and trajectories, including and comprising: participation in sport; attitude to physical activity and sport; self reported fitness; self-esteem; attitudes to and intentions for the future; interest and participation in visiting 'wild places' and other outdoor environments?*

The study also looked in detail at what the participants thought of their Award experience. Getting young people interested in wild places could have long-term benefits both for their development and for their health. However, this topic is under researched and provides the inspiration for this study.

## APPROACH AND METHODS

Data were collected in two ways: questionnaires and focus groups. There were three sets of detailed questionnaires covering health-related behaviours and opinions, experiences of wild land and aspirations for the future. The first set ('wave 1') took place immediately before the Award experience started and thus represented the 'baseline' or starting point. The second set ('wave 2') was at the end of the Award experience. This set also asked detailed questions about what participants had done for their Award, their attitudes to it and how the experience might have changed their opinions and behaviours. The third set ('wave 3') took place approximately 18 months after the Award finished and asked again about attitudes to the Award and health and health-related behaviour; this was to determine whether any changes lasted.

A number of Award participants who had not been part of the survey then took part in focus groups to discuss their experiences and attitudes in more detail. This allowed the research team to explore some of the results from the questionnaires in more depth.

We had 316 respondents at wave 1. It was not possible to calculate an overall response rate to the surveys in the conventional sense because we could not record the numbers of Award participants who refused to participate at wave 1. We were able to calculate follow-up rates (that is to say, the rates at which respondents completed each subsequent questionnaire). The follow-up rate for valid responses for wave 1 to wave 2 was 65%, and for wave 2 to wave 3 it was 34%. The overall follow-up rate from wave 1 to wave 3 (22%) was lower than we hoped, but not remarkably low for a study based on younger people that included a postal component. It is important that the wave 1 to wave 2 follow-up rate was good.

The average age of the respondents was 13 years old, ranging from the youngest at 8 years to the oldest at 18 years. The sample was evenly balanced between boys and girls. We were able to establish whether a respondent was resident in a neighbourhood which was part of the most deprived 15% of the Scottish population. Just over 20% of our respondents were from these neighbourhoods, emphasising that the Award reaches some of Scotland's most deprived young people and also that we would hear their views.

## FINDINGS AND CONCLUSIONS

### What previous experience of wild places did the participants have?

Whilst most participants did have some previous experience of the kinds of environments the Award is focused on, a significant minority did not; nearly one in ten of the participants had never been to a wild place before. The chances of being in this minority were substantially increased by socio-economic deprivation; nearly one in four of Award participants from the poorest circumstances had no previous experience of wild places, compared with about one in 25 of the rest of the Award participants.

### What did the participants think of their Award experience?

The Award experience was seen as overwhelmingly positive; 95% of participants enjoyed it and 92% felt that they had achieved something by completing it. There was a relatively mixed set of opinions as to whether it had led to greater happiness or health. However, the Award experience was certainly not seen as boring or 'like normal school'. At wave 3, some time after the Award was finished, positive attitudes had only diminished a little. Older respondents were, on the whole, less likely to report favourably on their Award experience, but by no means failed to enjoy it. One of the most surprising results was that there was no difference between boys and girls in terms of their enjoyment of the Award experience.

The participants enjoyed their Award experience because

- They weren't expecting to like it

*Interviewer: "What were you expecting?"*

*"Like mostly more written work, like you would do in school. Like a bit more boring. But it wasn't. It was pure fun." (boy aged 15)*

- They enjoyed the conservation activities

*"It's a good feeling that you've helped." (girl aged 15)*

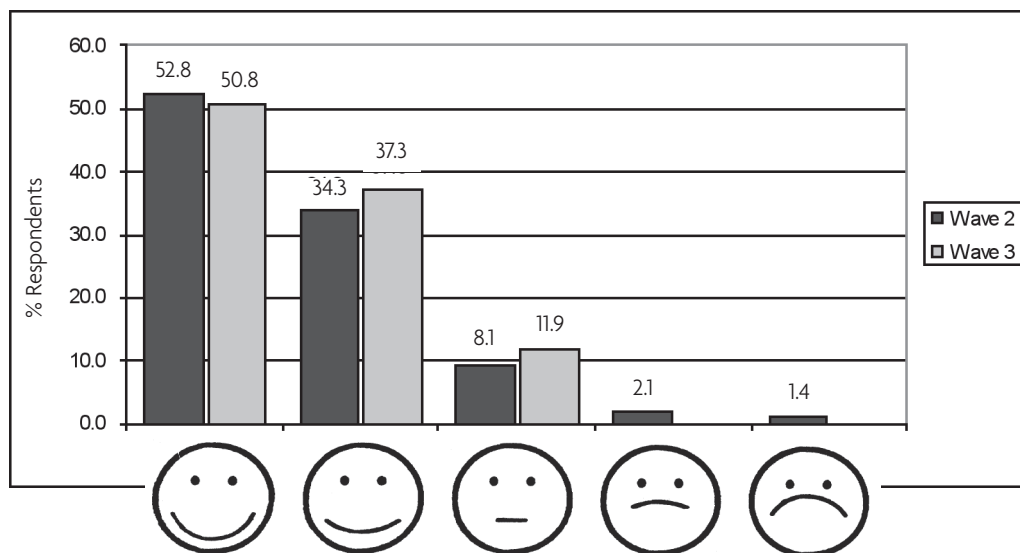
- It was social

*"Some people had friends within the group, but because it's such a big year group, you might not know a lot of people, so it was good to get a chance to talk to them [...] you made new friends." (boy aged 14)*

- It was fun and it was new

*"Just trying loads of new things is good because you don't know you like it until you've tried it and we didn't really have the chance to try it before." (boy aged 15)*

At waves 2 and 3 the respondents were asked to indicate their attitudes to the Award experience using a 'smiley face scale'. Figure 1 shows their responses.

**Figure 1: Participants' feelings about doing their Award at wave 2 and wave 3**

### What were the participants' attitudes to physical activity and how did these change?

Attitudes to sport were generally more positive among younger respondents and boys (older girls were least likely to be positive). Although we did detect an improvement in attitudes to sport immediately after the Award, this had disappeared by wave 3, well after the Award had ended.

### Did the Award have an impact on self-esteem?

Self-esteem is the confidence and satisfaction a person has in him/herself. It is linked to good mental health and is seen as an important trait to foster in young people. There was no evidence that the Award experience had an impact on levels of self-esteem for the participants as a whole. This is probably not surprising, since young people have so many other things going on in their lives which affect their self-esteem. However, some individuals in the focus groups did report that their confidence was improved by their Award activities.

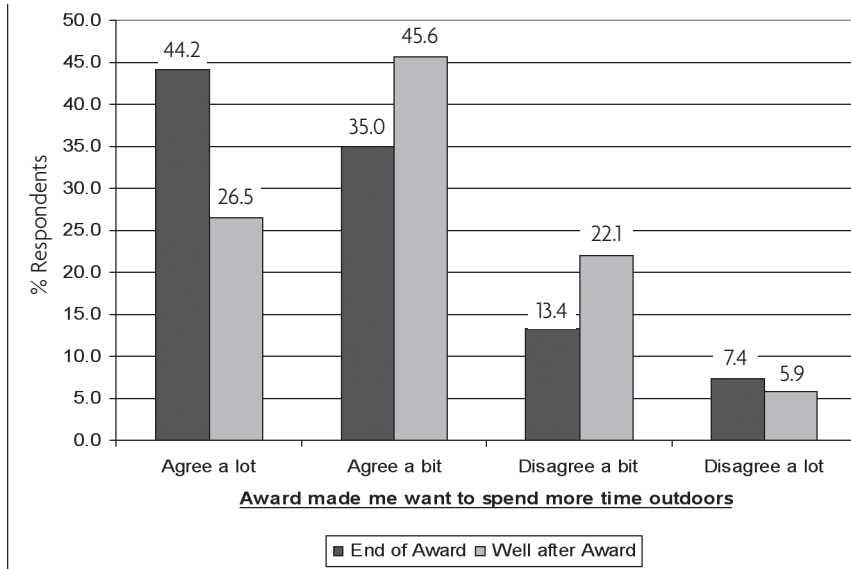
*"I think it gave me more confidence. Because I was really nervous about having to try it but when I did I just loved it so much that I got caught up in the atmosphere and it was fun so I managed it." (boy aged 15)*

### What aspirations for future contact with natural environments did the Award participants hold at the start of their Award and how did these change?

We measured these aspirations and their change in several different ways. Even long after finishing the Award, there was strong agreement that the experience led to wanting to spend more time outdoors and to visit natural places, as shown in Figure 2. This positive change was seen particularly amongst those from the poorest backgrounds.



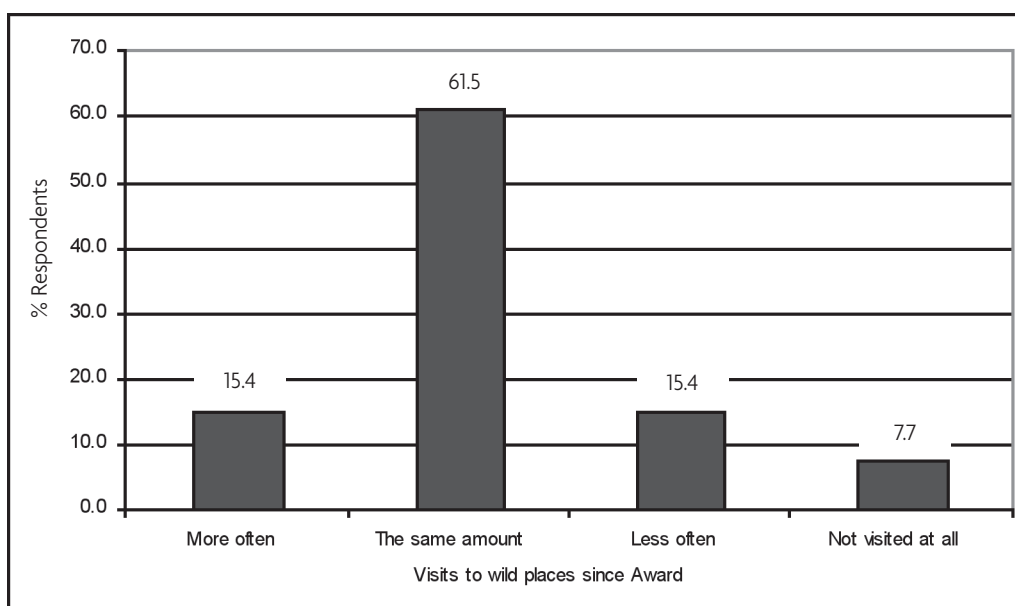
**Figure 2: Agreement with the statement “The Award made me want to spend more time outdoors”**



### Did Award participation result in more visits to wild places?

By wave 3, despite reporting aspirations for more contact with nature and wild places, the majority had not actually changed the number of visits they made to such places, as shown in Figure 3.

**Figure 3: Reported visits to wild places since Award**



This finding is highly likely to reflect the fact that most of the respondents were not in control of their visits to these environments; it requires some combination of time, parental permission, company and perhaps transport. Some members of the focus groups also told us that they would rather visit wild places with friends than with family, but that such visits required organisation and perhaps technical skills which were beyond them.

### General conclusions

The participants overwhelmingly enjoyed and valued their Award experience. The experience also led to increased aspirations for visiting wild places, particularly among those from the poorest backgrounds. The study showed that those in the poorest circumstances were much less likely to have visited wild places before their Award experience, and that perhaps this group was most positively affected by the experience.

Nonetheless, participation in the Award did not lead to any demonstrable and sustained shift in attitudes to physical activity or increase in visits to wild places. The Award experience was successful at introducing young people to wild places and helping to establish aspirations for healthy behaviours but, in itself, the Award cannot translate aspiration into actual behaviour; that is something which other agencies need to prioritise and sustain. The focus groups provided some anecdotal examples of activities which boosted confidence, but we cannot conclude that the Award definitely improved self-esteem for most participants.

### Implications for policy and practice

This study has policy relevance. The Award experience can be closely aligned with at least three of the Scottish Government's five strategic objectives.

**Strategic Objective 2:** a Healthier Scotland seeks to "Help people to sustain and improve their health, especially in disadvantaged communities." The Award experience led to increased aspirations for contact with natural environments, which has been shown in other research to help protect and improve health. That this effect was strongest for young people from the most deprived communities gives the Award additional policy significance, because these are often the hardest groups to reach and help. Other research shows that those who spend time in such environments as children are more likely to do so as adults and then to do so with their own children. The Award may be making a highly cost-effective contribution to a multi-generational behaviour change effect.

**Strategic Objective 4:** a Smarter Scotland seeks to "Expand opportunities for Scots to succeed from nurture through to life long learning ensuring higher and more widely shared achievements." The Award participants enjoyed the educational aspects of their experience. They learnt about conservation and the environment and many subsequently aspired to continue that interest into adulthood. Many also learnt that they could succeed in initially daunting tasks, and that working as part of a team of friends was rewarding.

**Strategic Objective 5:** a Greener Scotland seeks to “Improve Scotland's natural and built environment and the sustainable use and enjoyment of it.” The Award participants actively participated in caring for and conserving Scotland’s natural environment, they loved doing so and they felt a sense of achievement from it.

Whilst the study findings clearly demonstrate the potential value of the Award experience as a contributor to achieving these strategic aims, the findings also highlight the extent of existing problems which require enhanced policy action. The study showed an enormous gap between those from the poorest communities and the rest of Scotland with respect to who had experienced wild places before their Award experience. The implications are clear: more young people should have the chance to have this kind of experience, and efforts should continue to reach the least advantaged.

REFERENCES

- 1 The John Muir Award: [www.johnmuiraward.org](http://www.johnmuiraward.org)
- 2 The John Muir Trust: [www.jmt.org](http://www.jmt.org)
- 3 Bell S, Montarzino A, Travlou P. Mapping research priorities for green and public urban space in the UK. *Urban Forestry & Urban Greening* 2007; **6**(2):103-115.
- 4 Mitchell R, Popham F. Greenspace, urbanity and health: relationships in England. *J Epidemiol Community Health* 2007; **61**(8):681-683.
- 5 Mitchell R, Popham F. Effect of exposure to natural environment on health inequalities: an observational population study. *The Lancet* 2008; **372**(9650):1655-1660.
- 6 Health Council of the Netherlands and Dutch Advisory Council for Research on Spatial Planning NatE. *Nature and Health: the influence of nature on social, psychological and physical wellbeing*. 2004. The Hague, Health Council of the Netherlands and RMNO.
- 7 Thompson CW, Aspinall P, Montarzino A. The Childhood Factor: Adult visits to green places and the significance of childhood experience. *Environment and Behavior* 2008; **40**(1):111-143.
- 8 Kaczynski AT, Henderson KA. Environmental correlates of physical activity: A review of evidence about parks and recreation. *Leisure Sciences* 2007; **29**(4):315-354.
- 9 van den Berg AE, Hartig T, Staats H. Preference for nature in urbanized societies: stress, restoration, and the pursuit of sustainability. *Journal of Social Issues* 2007; **63**(1):79-96.

CONTACTS**Fiona Crawford**

Public Health Programme Manager  
Glasgow Centre for Population Health  
Level 6, 39 St Vincent Place  
Glasgow, G1 2ER

Tel: 0141 221 9439

Email: [fiona.crawford@drs.glasgow.gov.uk](mailto:fiona.crawford@drs.glasgow.gov.uk)

Web: [www.gcph.co.uk](http://www.gcph.co.uk)