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Residential Outdoor Education in Scotland:
change over time and the impacts of socio-economic
deprivation on access.



Loch Insh Canoeing & Sailing School c1970 (Loch Insh Outdoor Centre, 2018)

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"I understand the nature of plagiarism and am aware of the University's policy. I confirm that this dissertation is my own work. I confirm that I received any required ethical approval."

Signature: Beckie Davies Date 13/04/18

Abstract

The outdoor education industry in Scotland has changed considerably since the 1980s. Many local authority centres have closed, or changed their status in order to survive. Prior to this report, there was no definitive picture of the current composition of outdoor education centres, and even less so for the 1980s. Schools' access to residential outdoor education was also under researched. This report used data from a range of sources to find the location, size, bed number and managing authority of outdoor education centres in 1982 and 2018. Representatives from the Scottish Advisory Panel for Outdoor Education provided data on schools' access to residential outdoor education. Data were compared to lists of all schools to generate a percentage of schools accessing residential outdoor education per local authority. The Scottish Index of Multiple Deprivation was used to analyse the correlation between socio-economic deprivation and access to residential outdoor education. Between 1982 and 2018, the number of residential outdoor education centres in Scotland has reduced. The number of beds in outdoor education centres has decreased less than the population of 4 – 16 year olds over the same period. A smaller proportion of outdoor education centres are managed by local authorities in 2018 than in 1982. Comparing academic years 2011/12 and 2016/17, there is an increase in the percentage of schools accessing residential outdoor education. Most outdoor education residential occur in summer and a higher percentage of secondary schools access residential outdoor education than primary schools. Socio-economic deprivation and schools' access to residential outdoor education were not strongly correlated in this report. The Scottish Attainment Fund and Pupil Equity Fund have been used to support outdoor education in some areas, but spending of inclusion funding varies greatly between schools and local authorities.

Phil Thompson, non-conflict of interest statement

Phil Thompson, co-supervisor of this research, delivers teaching on the Environmental Science and Outdoor Education Degree at the University of Stirling. Phil is also Development Manager at Ardroy Outdoor Education Centre. This presents a potential conflict of interest, where someone working in the industry could want to access more information about potential competitors. To ensure this was not the case, access to local authority data, details of centre bed numbers from the Adventure Activities Licensing Agency (AALA) and other potentially sensitive information was known only onto the researcher. Phil Thompson only saw and advised on summary data. This was outlined in the ethics agreement before research got underway.

Introduction

Whether referred to as outdoor education, adventure education or outdoor learning, learning outside the classroom has a long history in the UK. 1907 saw the formation of Scouting (The Scout Association, 2018), the first Outward Bound Centre opened in 1941 (The Outward Bound Trust, 2018) and the Duke of Edinburgh Award was launched in 1956 (The Duke of Edinburgh's Award, 2018b).

The term *outdoor education* was thought to have been first used in 1962, with *adventure education* being used slightly later in 1964 (Ogilvie, 2013). Current preference in both England and Scotland leans towards the term *outdoor learning* (English Outdoor Council, 2018; Learning and Teaching Scotland, 2010) following a learner-centric approach. For ease of reading, the term outdoor education is used throughout this report and can be considered to broadly mean experiential learning in the outdoors.

The Institute for Outdoor Learning (2017) highlights benefits of outdoor education, including self-development, teaching or supporting the curriculum, and transferable skills such as communication and problem-solving. The creation of Outdoor Learning Hubs in West Lothian, Scotland, demonstrated that with 24 hours of outdoor learning over a 12-week period, pupils gained an average of 6 months of mental arithmetic and 2 months of general maths compared to a control group (Harvey et al., 2017). Harvey et al. (2017) also evidence that the study group's perception of how they felt they were achieving, along with how active, responsible and included they felt, increased by 20%, while the control group's perceptions of achievement, activity, responsibility and inclusion decreased by 3%. Time spent outdoors has positive impacts on young people's mental wellbeing and resilience (Capaldi et al., 2015; Mutz and Müller, 2016) but Natural England (2009) found that less than 10% of children play in natural places compared to 40% of adults when they were young. The decreased connection with the outdoors in children's play and home lives (Natural England, 2009), alongside the benefits of outdoor education (Capaldi et al., 2015; Harvey et al., 2017; Institute for Outdoor Learning, 2017; Mutz and Müller, 2016) highlights a serious disconnect between young people and the

outdoors and suggests that the benefits from incorporating outdoor education into school-based learning might be great.

There is a growing evidence base that shows the positive value of **residential** outdoor education for learning and personal development (Christie et al., 2014; Scrutton, 2015; The Outward Bound Trust, 2014). Kendall and Rodger (2015) show that the time, space and intensity of residentials promote the development of peer and staff-student relationships and allow for an immersion in learning. Residentials break down existing barriers and social structures, participants are more equal and a stronger sense of community is built. Increased responsibility helps develop independence, teamwork and maturity. As an example of the immersive nature of residential outdoor learning experiences, residentials can reduce the time young people spend using technology and social media. On a 5-day outdoor education residential, time without screens was seen to improve preteens' understanding of nonverbal emotional cues (Uhls et al., 2014). The positive impact of residential outdoor education can be seen to be long lasting. In a study of previous participants at Ardentenny Outdoor Education Centre, Scotland, 72% of questioner respondents reported that this residential trip influenced their adult lives (Telford, 2010).

In Scotland, the Curriculum for Excellence states pupils are entitled to opportunities for outdoor learning, available at their place of learning and in the wider community (Education Scotland, 2009; Learning and Teaching Scotland, 2010). However, Beames et al (2009) highlight that there is no statutory requirement for Scottish pupils to learn outdoors, and the perceived high cost and low curricular relevance is off-putting for schools. A recent English study estimates that 21% of the English school population attend a residential each year and pupils in disadvantaged areas have fewer opportunities to participate (Menzies et al., 2017). In Scotland, Mannion et al. (2015) found that the average number of minutes per pupil per week, spent on residential outdoor learning, more than doubled between 2006 and 2014, across 53 sample schools. In both primary and secondary schools in 2014, schools in less deprived areas provided more residential stays but the average duration of residentials was reasonably constant regardless of deprivation (Mannion et al., 2015).

By supporting the curriculum, outdoor education can help close the attainment gap, the disparity in educational performance between pupils from wealthier and poorer backgrounds, although funding can be a challenge. In 2015, closing the attainment gap was made a priority by the Scottish Government, to be met in part by the introduction of the Scottish Attainment Fund, which provides £750m between 9 local authorities (Scottish Government, 2017b). In 2017/18, an additional £120m Pupil Equity Fund was allocated based on the number of pupils who receive free school meals, with >96% of Scottish schools receiving funding (Scottish Government, 2017a). In an English study, weekly visits to a National Trust site for a six week programme of curriculum-based outdoor learning was seen to improve attainment across English reading, English writing, and maths, even after the experiment had finished (Quibell et al., 2017). However, in West Lothian, while outdoor learning benefitted the attainment of the students whose performance was in the middle to lower range, the top and very lowest performing students remaining in the same relative position (Harvey et al., 2017). Decisions as to how the Scottish Attainment Fund is spent lies with local authorities (Scottish Government, 2017b) while Pupil Equity Funds are spent by individual schools (Scottish Government, 2017a).

The 1970s/80s has been considered the golden era for outdoor education being described as the “Honeymoon Seventies” (Ogilvie, 2013) and the “heyday of outdoor educational provision in Scotland” (Higgins, 2002). Youth hostelling figures in England and Wales reached record numbers in 1976 and in many areas outdoor education was gaining momentum (Ogilvie, 2013). The Countryside Commission for Scotland (1983a) report that in 1982, residential outdoor education was often an integral part of geography, biology and history. Looking back to the 1970s/80s, funding appears to be less of a constraint than it is currently in local authority’s provision of outdoor education. Higgins (2002) notes that many local authorities bought and converted mansion houses, which were relatively cheap at the time. In the late 1970s Tertowie centre, managed by Grampian regional council, employed 9 or 10 permanent staff in a centre that could accommodate ~30 students (McDonald, G. pers. comm.). High staff to student ratios at a local authority centre suggests funding was not a constraint.

However, as early as 1983 it was recognised that in times of economic recession and funding cuts, outdoor education may be one of the first provisions to be cut, partly due to the high transport and building maintenance costs (Countryside Commission for Scotland, 1983a). As well as budget cuts, other factors contributed to the changes in outdoor education provision including the Conservative government coming into power in 1979 and the subsequent curriculum reforms (Ogilvie, 2013). Both the School Boards (Scotland) Act 1988, which increased parental powers through the implementation of school boards (UK Government, 1988) and the Self-Governing Schools etc. (Scotland) Act 1989 under which schools may remove themselves from local authority control (UK Government, 1989) are likely to have influenced the provision of outdoor education, but these changes are hard to track. The local council reorganisations of 1975 and 1996 (Scottish Government, 2015) will also have affected outdoor education provision through changes in local authority size, budget and assets.

Higgins, (2002) note that in the years preceding 2002 the provision of outdoor education in Scotland had been declining overall, with a shift away from local authority provision and a rise in provision by charities and commercial companies. However, in recent years there has been a rise in the numbers of people engaging with outdoor initiatives. The number of Scottish pupils gaining a John Muir Award doubled between 2011/12 and 2016/17 (John Muir Trust, 2017) with 25% Scottish awards being achieved through residential (Clark, T. pers. comm.). Across the UK, 300,000 Duke of Edinburgh awards were started in 2016/17, 7% more than the previous year (The Duke of Edinburgh's Award, 2017). Mannion et al., (2015) document an overall increase in time spent outdoors in sample schools between 2006 and 2014, but note that this increase varies between schools. Both primary schools and secondary schools within the sample increased the amount of time spent on residential trips between 2006 and 2014 (Mannion et al., 2015).

This project will investigate **residential** outdoor education in Scotland. A focus on residential excursions narrows the scope of the project to where data collection is possible. To understand changes in the provision of residential outdoor education over time, it is necessary to compare past with present. In the context of residential outdoor

education in Scotland, this research seeks to understand changes in provision by outdoor centres and access by school pupils over time.

Specifically, this report will assess:

- 1) Changes in the number, size and management of residential outdoor education centres between the 1980s and 2018
- 2) Changes in schools' access to residential outdoor education between academic years 2011/12 and 2016/17
- 3) Current trends of access in relation to timing of residential and age group attending
- 4) If socio-economic deprivation influences schools' access to residential outdoor education
- 5) If the Scottish Attainment Fund and Pupil Equity Fund have affected provision of and access to outdoor education

Taken together this analysis aims to present an assessment of the state of the industry with regards to provision of residential outdoor education and access by local authority schools across Scotland.

Methods

In the preparation of this report, different approaches were taken to collect and analyse current provider data, historical provider data, and current data regarding school pupils' access to residential outdoor education.

For the purposes of this report, a residential outdoor education centre is defined as a permanent structure with sleeping facilities (beds, bunks, platforms etc), that, during its operational period, provided activities that would currently be licensable by the Adventure Activities Licensing Authority (AALA), if AALA had existed at the time. Licensable activities are those provided to young people under the age of 18, in return for payment, within the four broad categories of caving, climbing, trekking and watersports (Health and Safety Executive, 2018b).

Collection and analysis of current provider data

AALA were contacted via email and asked to provide a list of all Scottish licenced providers and their location. These data were initially provided in May 2017 and an updated version made available in February 2018. AALA are currently part way through a 3-year project collecting the estimated number of person days ran by each licenced provider in Scotland. As AALA's data on person days is not yet complete, it was not used within this report. The AALA data covered all licenced providers in Scotland and therefore included providers without a residential centre. Providers without a residential centre (a permanent structure with sleeping facilities - beds, bunks, platforms etc) were removed using internet research and provider websites. Boats, canvas tents, and wheeled huts were deemed not to be permanent structures. Three hotels were also removed from this list of providers (Skibo Castle, Crieff Hydro and Auchrannie Leisure) as while they had an AALA licence and residential facilities, their function was as a hotel not as a centre for groups of young people.

The remaining providers – residential outdoor education centres – were divided into three funding categories: local authority; charity and commercial company, by consulting the websites of providers. For further details see Appendix 1. Charitable status was found using the Office of the Scottish Charity Regulator website (OSCR, 2018). Where a provider was both a commercial company and a charity, this was listed as a charity. Where local authorities operate arm's-length trusts, organisations that are formally separated from a local authority but subject to its control (OSCR, 2015), these were listed as commercial companies or charities, not as local authorities. The total number of beds at each centre was found using a combination of provider websites and communications with centre staff, which are detailed in Appendix 1. Where provider postcode in the AALA data was different from centre postcode, the centre postcode was recorded from the provider's website or google maps, sources are listed in Appendix 1.

Collection and analysis of historic provider data

A list of centres that were operating during the 1970s and 80s was created, amalgamating information from three key resources: Committee on Education and the Countryside, (1971); Countryside Commission for Scotland (1983a); and Ogilvie (2013). Centre name, location, opening date, closing date and managing organisations were recorded. The focus was initially on the 1970s, based on Ogilvie (2013) regarding the decade as the “honeymoon seventies” for outdoor education. However, due to a report by Countryside Commission for Scotland (1983a), 1982 was chosen as the year to focus on since it provided the best quantity and quality of data.

Centres which were not open during 1982 were removed from the list, along with centres that did not fit the definition of having residential facilities and providing AALA licensable activities to young people. Youth hostels were excluded, as their primary function was accommodation. The Countrywide Holidays Association and Holiday Fellowship Holidays Ltd properties were also excluded as these organisations provided holidays for adults and families with limited activity provision (Christian Science Monitor, 1981; Holiday Fellowship Holidays, 2017).

Each centre was then individually researched using centre name, location and any other known details. Information was derived from a variety of internet-based sources including centre websites, council meeting minutes and news articles. For further details see Appendix 2. Opening date, closing date and managing organisation was recorded. To fill gaps in data, a spreadsheet of residential outdoor centres that may have been open during 1982 was then distributed by email to all Scottish Advisory Panel for Outdoor Education (SAPOE) members, the Scottish Adventure Activities Forum, other key researchers and people who worked in the outdoor industry during the 1980s. These people were either known to the researcher or to Phil Thompson. Phil Thompson is co-supervisor of this report, teaches on the Outdoor Education degrees at the University of Stirling, and is Development Manager at Ardroy Outdoor Education Centre. Karen Lamb, Administration Officer for Scottish Outdoor Education Centres, was contacted via email to provide bed numbers and closing dates for Scottish Outdoor Education Centres and

was able to provide an additional key resource *The Directory for Outdoor Education Centres in Scotland* (Countryside Commission for Scotland, 1983b).

Bed numbers and grid references for most centres were taken from *The Directory for Outdoor Education Centres in Scotland* (Countryside Commission for Scotland, 1983b). Gaps in location data were filled internet research, using centre websites and historic maps (see Appendix 2). Where exact location could not be found, the nearest postcode was taken for the town. Management of centres was divided into local authority or charity/commercial company. Since there was no separate legal entity for charities until the Charities Act 2006 (The National Archives, 2006), the 1982 providers could not be separated into charity or commercial company.

Mapping of provider data

Provider data for 2018 and 1982 was mapped in the same way. Locations of centres were converted to eastings and northings using a web-based converter (UK Grid Reference Finder, 2014). Location and bed numbers of centres were imported into QGIS (QGIS Development Team, 2018) in WGS 84 (EPSG 3857). Points were categorised by number of beds. OSM standard (OpenStreetMap Contributors, 2015) was used as the background map. Map images were produced in QGIS Print Composer.

In the 1982 data, where the location of a centre was known but bed number was not (Applecross, Auchendaff, Elphin, Gowanpark, Morrone Lodge, Netherurd & Stanemuir Centres), these were displayed on the map with a different coloured point. Centres where the location could not be found were removed from the data set.

Collection of local authority data

A concept note was written, giving an overview of the project, and sent out to all members of SAPOE. A website (www.stirlingoutdoor.wordpress.com), was created in conjunction with the concept note as a means of sharing project information.

After a series of email communications, Willie White, SAPOE representative for East Ayrshire, gave the researcher personalised access to data on school excursions from 2011 onwards. These data are stored on EVOLVE (eduFOCUS Limited, 2017), a commercial platform for the management of educational visits. Initial analysis was undertaken on this data set to explore what analysis was possible that could be of use to the outdoor education industry. Comparisons were drawn between access to residential outdoor education and Scottish Index of Multiple Deprivation (SIMD) rank for schools in East Ayrshire. The researcher shared these initial results and project information in a presentation to SAPOE on September 7th, 2017, at the University of Edinburgh. This presentation was part of the proceedings of a SAPOE quarterly meeting, where the SAPOE committee, local authority representatives, honorary members and guests met to discuss current topics in Scottish outdoor education.

Following this presentation, data requests were sent via email to the other 9 local authorities that use the EVOLVE data sharing platform. It was requested that these local authorities share information on trips which were recorded as *residential* and *adventurous*, from 2011 onward, via personalised access or direct sharing of relevant data. Once the availability of data was better understood, a data request was sent out to the other 20 Scottish local authorities that had a SAPOE representative but did not use EVOLVE. West Dunbartonshire and Renfrewshire were not contacted as they had no SAPOE representative. For details of which local authorities were contacted see Appendix 3.

Local authorities were asked to provide details of residential outdoor education excursions for two time periods, 01/08/2011 – 31/07/2012 and 01/08/2016 – 31/07/2017, including school name or postcode, dates of the residential and where possible the destination of residential, year group attending and number of pupils attending. The two time periods selected covered two complete academic years and allowed for a comparison to be made over time, in light of government changes and the implementation of the Scottish Attainment Fund in 2015 (Scottish Government, 2017b). Following 8 face-to-face meetings, 13 phone calls and 113 emails, data were received from 18 out of 30 local authorities contacted (see Appendix 4). Data from Stirling and

Clackmannanshire could not be used as it was incomplete. The 16 local authorities from which at least 1 academic year of residential data were received is show in Figure 1.

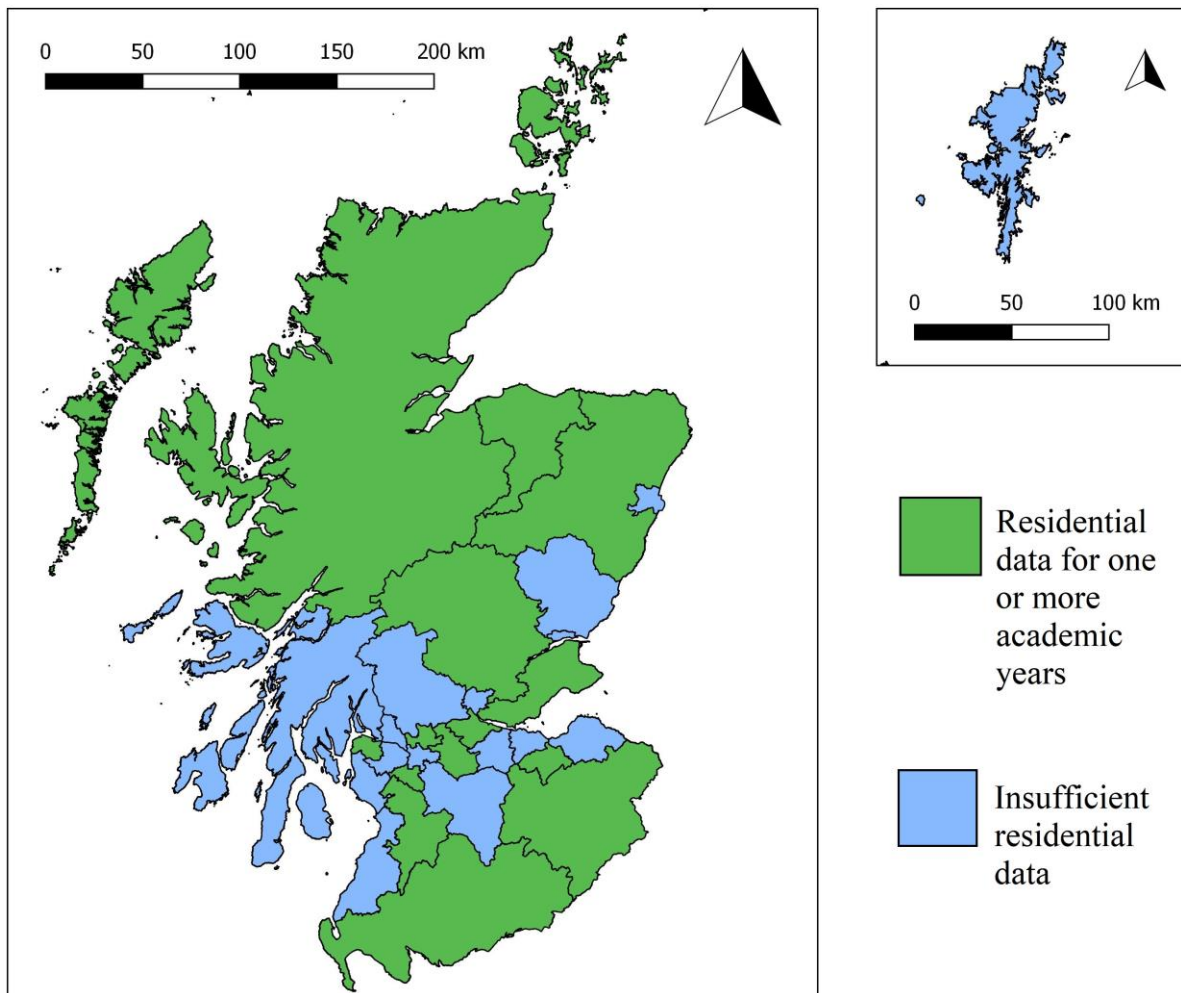


Figure 1: Extent of residential data used within project. Inset shows the Shetland Isles. Local authority boundary layers taken from SASPAC (2011).

Storage of data by local authorities

During data collection, it was found that some local authorities store their data by academic year (the format which was chosen for this report), but others store by calendar year or financial year. This meant that to capture academic year, multiple sets of data were often required. Out of the 16 local authorities with at least one year's outdoor education residential data (Figure 1), five local authorities didn't have historical data for academic year 2011/12, and one authority didn't have data for 2016/17.

The Scottish working group of Learning Away contacted 29 out of 32 Scottish local authorities in 2017, to ask how they recorded data about school off-site visits. 3 local authorities were not contacted as they did not have a SAPOE representative. 23 local authorities responded. 7 respondents use EVOLVE, 14 use an alternative centrally held database, and 2 do not store the information centrally (Jackson, J. pers. comm.).

Scottish Index of Multiple Deprivation (SIMD)

To explore if socio-economic deprivation influences access to residential outdoor education, the Scottish Index of Multiple Deprivation was used in the analysis of local authority data. The Scottish Index of Multiple Deprivation (SIMD) is based on 38 indicators of deprivation and is a tool for identifying areas of inequality across Scotland. Scotland was split into 6,976 data zones, where 1 is the most deprived and 6,976 is the least deprived (Scottish Government, 2016a). Within this study, SIMD will be referred to in quintiles, each of which contain 20% of the data (Scottish Government, 2013). Quintile 1 contains the most deprived 20% of data zones, with quintile 5 containing the least deprived 20%.

For academic year 2016/17, the proportion of pupils who live in SIMD quintile 1 was available for all Scottish schools (Scottish Government, 2016b). For 2011/12, data on the proportion of pupils living in SIMD 1 was not available, so schools located within SIMD 1 were used as a proxy for more pupils living in SIMD 1.

Using R (R Core Team, 2017) the percentage of pupils who live in SIMD quintile 1 (most deprived) and SIMD quintile of school postcodes was explored for schools open in September 2016 across Scotland. A linear regression (using the LM function in R) was used to compare the whether a school's SIMD quintile (according to its postcode) was a useful predictor for the proportion of pupils attending that school living in a SIMD 1 postcode.

The results showed $R^2 = 0.022$. It was found that schools in SIMD 1 have a higher proportion of pupils from SIMD 1 (slope (\pm SE) = 0.281 (\pm 0.013), $P = <0.0001$), than schools in SIMD 3 (slope (\pm SE) = -0.092 (\pm 0.019), $P = <0.0001$), SIMD 4 (slope (\pm SE) =

-0.106 (± 0.012), $P = < 0.0001$), or SIMD 5 (slope (\pm SE) = -0.0598 (± 0.0232), $P = < 0.0001$) (Figure 2). However, schools in SIMD 2 have a wide spread of attending students from different SIMD quintiles (Figure 2), and is not a reliable predictor of the proportion of students living in SIMD 1 ($P = > 0.48$).

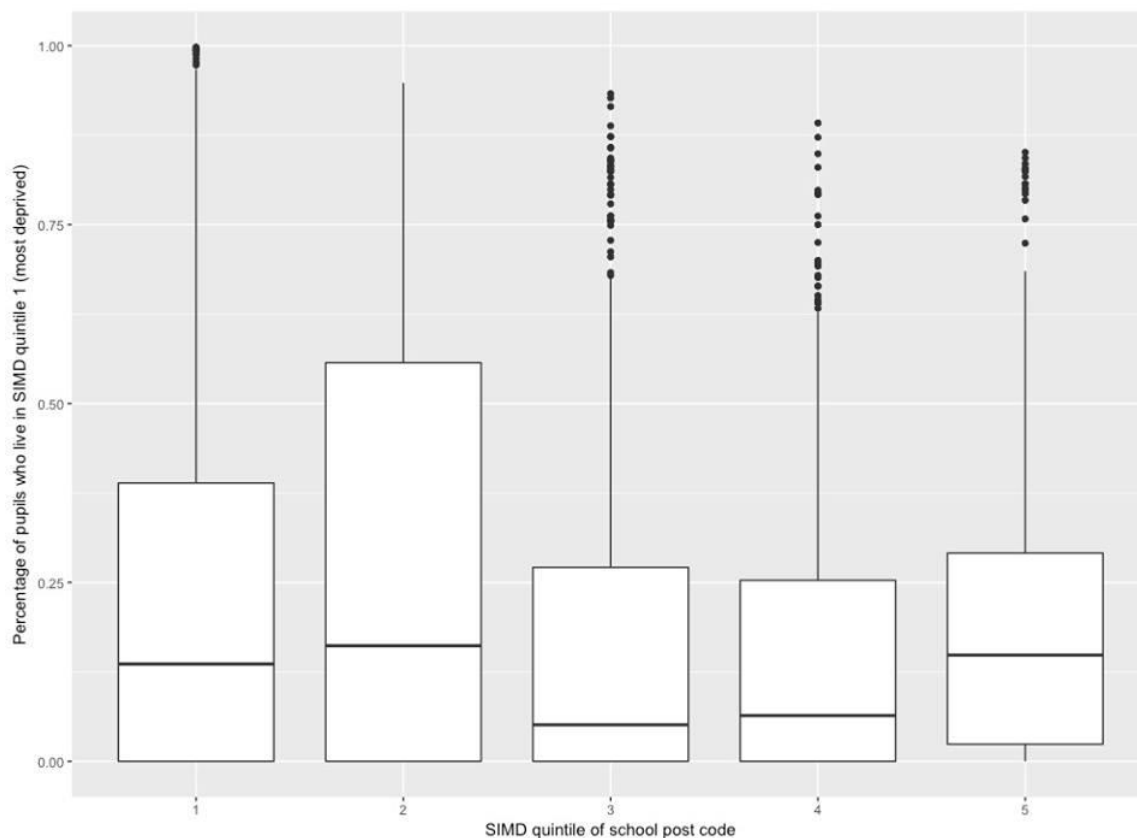


Figure 2: Percentage of pupils living in SIMD 1 attending schools located in SIMD quintiles 1 - 5

While there is considerable variability in the data, schools located in SIMD 1 can be used as a predictor for more pupils living in SIMD 1. As data for the percentage of pupils living in SIMD 1 was not available for 2011/12, the assumption was made that this proxy will hold true for 2011/12.

Analysis of local authority data

Local authority trips for the selected date ranges (01/08/11 – 31/07/2012 and 01/08/16 – 31/07/17) were separated out from the data provided by local authorities. Duplicates and

all non-residential trips were removed. Trips operating on 2 or more consecutive days were considered residential. Residential trips that were not outdoor education were removed, including city trips, cultural trips and non-adventurous sports (football, rugby, hockey). Where trips were recorded to countries or towns, but there was insufficient information on the purpose of the trip, these were included. Trips that were not linked to schools were removed, including community centres, active schools, Duke of Edinburgh Open Award groups and children's services. Some visits were listed by cluster group - a group of schools often containing a secondary school and the associated primaries. Where visits were listed by cluster, rather than by individual schools, it was assumed that all primaries from the cluster attended the residential. In Aberdeenshire and Falkirk, some visits were listed as cluster visits, and the individual school names were found online (Falkirk Council, 2014; Aberdeenshire Council, 2018).

A list of all schools open in September 2011 and 2016 was obtained from Scottish Government (2016b), and from this school postcode was used to generate SIMD rank of the school. This was undertaken for academic year 2011/12 and 2016/17, using the 2012 SMID data and 2016 SMID data respectively (Scottish Government, 2012, 2016c). The number of trips per school was compiled for 2011/12 and 2016/17 by manually comparing local authority lists of residentials to the list of all local authority schools. The percentage of schools accessing residential outdoor education was calculated for all schools, schools with >50% of pupils living in SIMD 1, <50% of pupils living in SIMD 1 and schools that were geographically located in SIMD 1.

Inverclyde only records primary visits centrally and North Lanarkshire only records visits to Kilbowie Outdoor Centre. For 2011/12 Dumfries and Galloway's records only cover trips to their own centres, not commercial centres. East Renfrewshire's data did not include Duke of Edinburgh Expeditions. Data from local authorities where all trips were not recorded was primarily excluded from the analysis, but where used these gaps are noted.

Statistical Analysis

To test if the proportion of centres managed by local authority or charity/commercial company was significantly different between 1982 and 2018 a chi-square test was performed in Excel (Microsoft Office, 2016).

Results

1982 vs 2018

Residential outdoor education centres that were open during 1982 and 2018 were mapped according to location and size. For this project residential outdoor education centre is defined as a permanent structure with sleeping facilities (beds, bunks, platforms etc), that, during its operational period, provided activities that would currently be licensable by AALA, if AALA had existed. During 1982 there were 123 centres that fitted this description compared to 64 centres in 2018. Bed numbers decreased by at least 11% from over 5718 to 5086 (Figures 3 & 4). All centres are listed in Appendices 1 and 2.

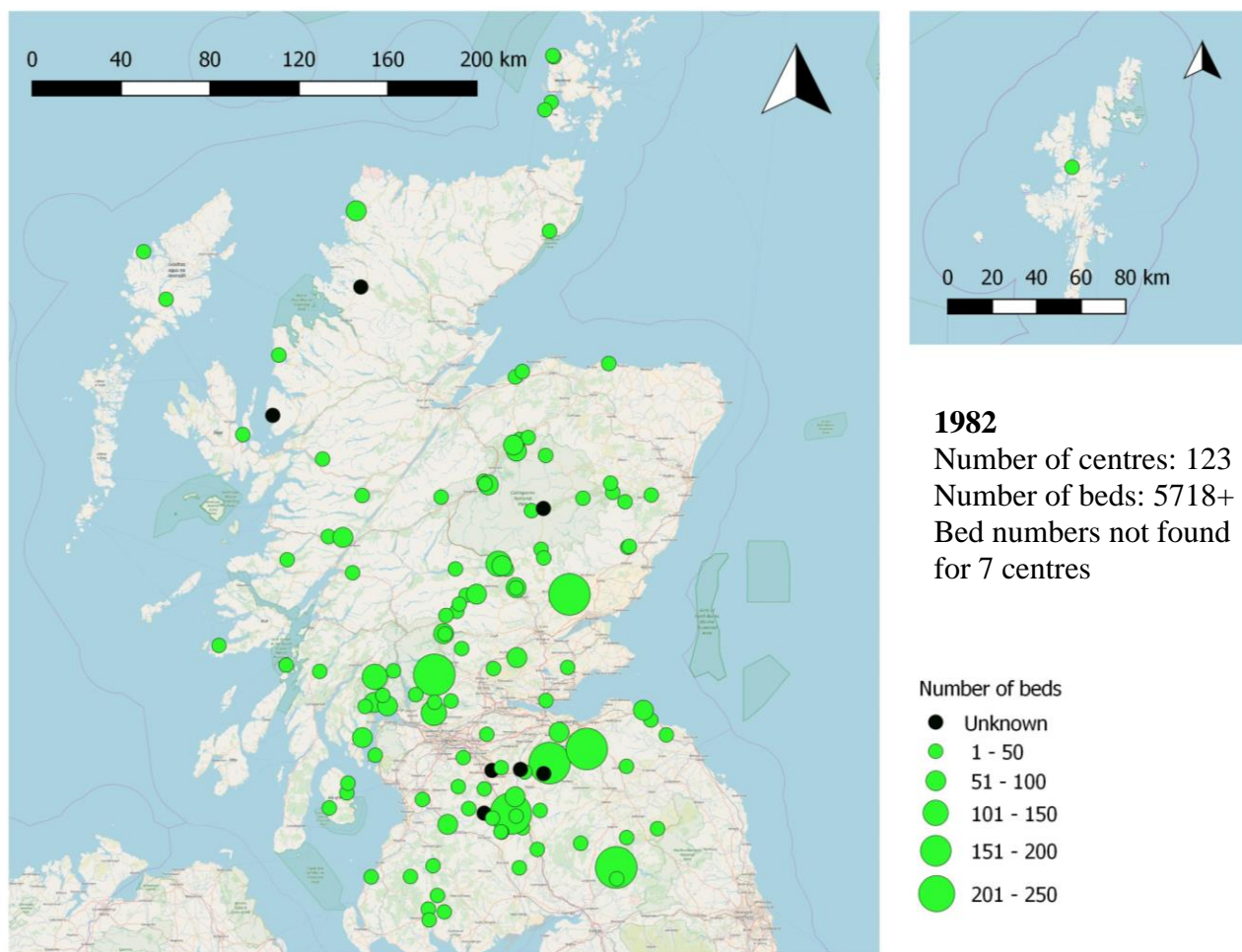


Figure 3: Distribution and size of outdoor centres in Scotland, 1982. Inset map shows the Shetland Isles.

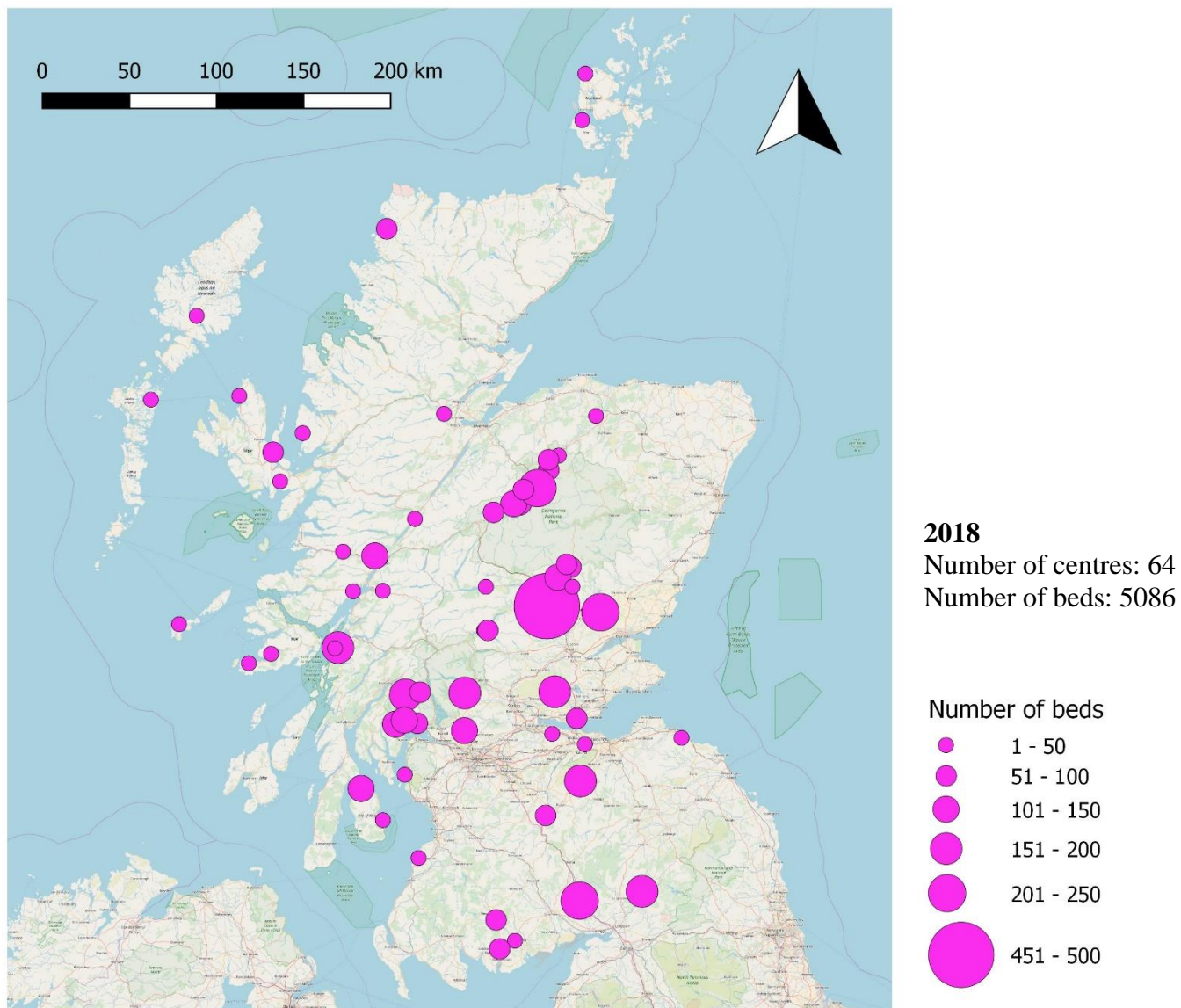


Figure 4: Distribution and size of outdoor centres in Scotland, 2018

Management of centres

In 1982, 59% of centres were managed by a local authority, compared to only 17% in 2018, with the remainder being managed by a charity/commercial company (Figure 5).

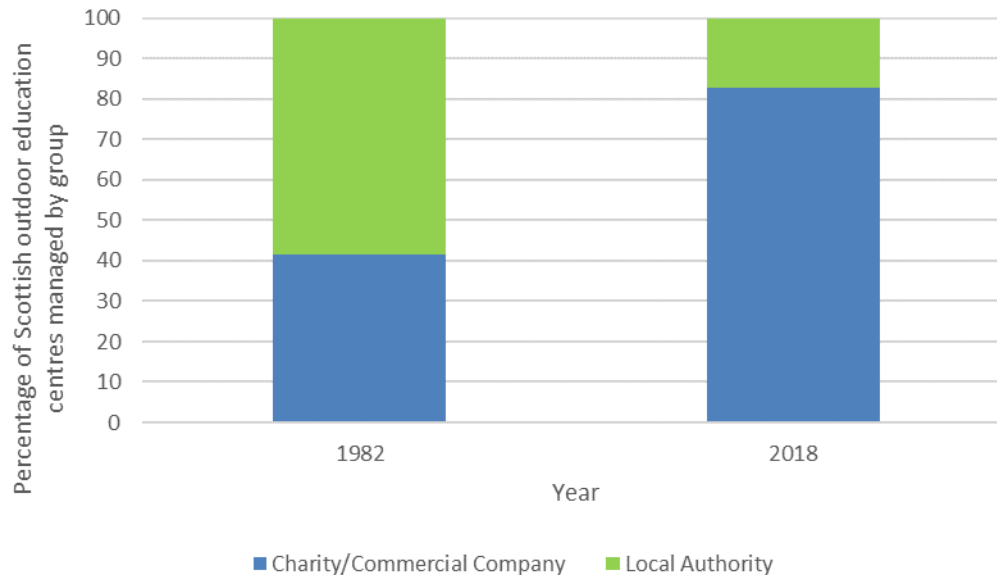


Figure 5: Management of Scottish outdoor education centres in 1982 and 2018

There was a significantly greater proportion of centres managed by local authorities in 1982, (*Chi Squared* (1, N = 170) = 29.16, $p < 0.0001$.)

In 2018, charity and commercial company can be separated, showing that 50% of all outdoor centres in Scotland are managed by a charity (Figure 6).

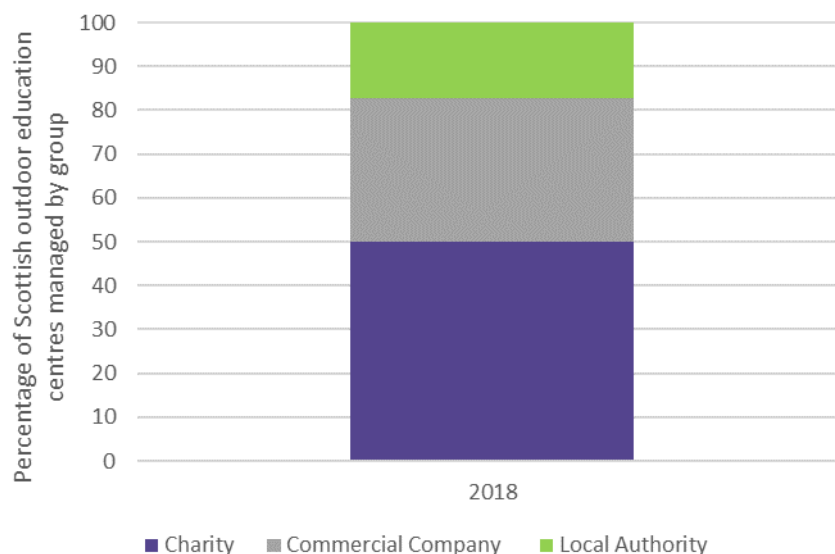


Figure 6: Management of Scottish outdoor education centres, 2018

Recent trends

When comparing academic years 2011/12 and 2016/17, the percentage of schools accessing residential outdoor education is generally higher in 2016/17 (Figure 7). Some local authorities show large increases in the percentage of schools accessing residential outdoor education (Aberdeenshire = 88% increase, Moray = 102% increase, Fife = 98% increase) and decreases in the Western Isles and East Renfrewshire are only 24% and 11% respectively.

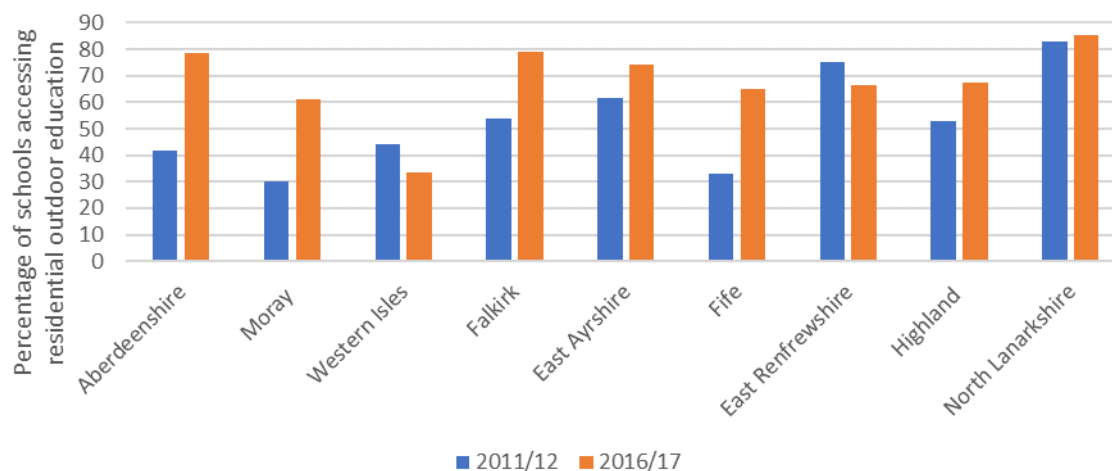


Figure 7: Percentage of schools accessing residential outdoor education by academic year and local authority.

SIMD

Figure 8 shows for academic year 2016/17, where >50% of pupils lived in SIMD 1 access to residential outdoor education varied between local authorities. The average percentage of schools accessing residential where >50% of pupils lived in SIMD 1 was 2% lower (73%) than in schools where <50% of pupils lived in SIMD 1 (75%). The local authorities shown in Figure 8 all have ≥ 3 schools with >50% of pupils living in SIMD 1 and ≥ 3 schools with <50% of pupils living in SIMD 1.

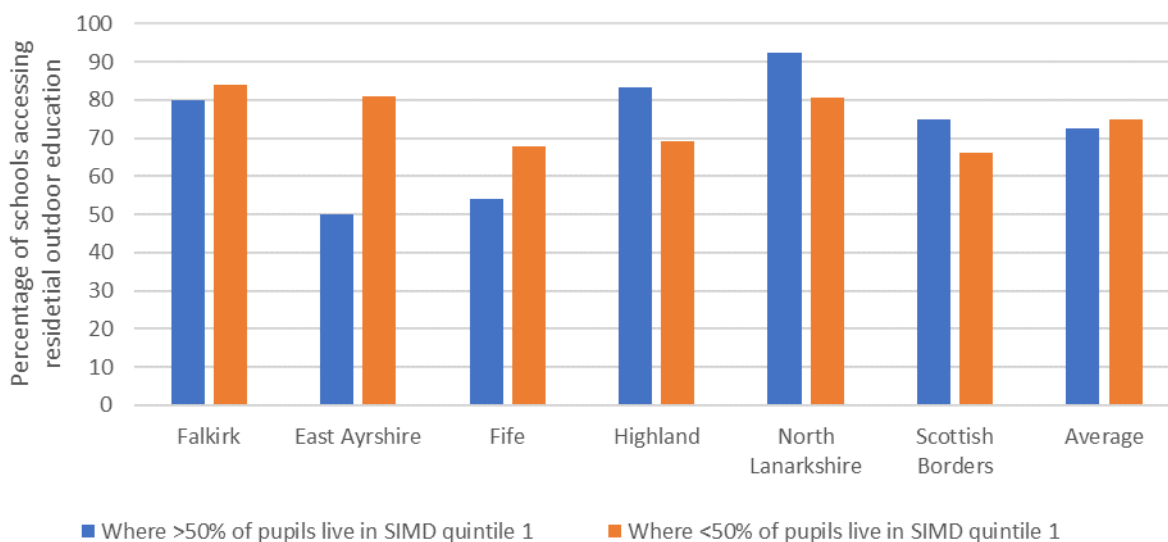


Figure 8: Percentage of schools accessing residential outdoor education where >50% or < 50% of pupils live in SIMD quintile 1, by local authority in academic year 2016/17. North Lanarkshire only records visits to Kilbowie Outdoor Education Centre

Using the schools with a SIMD 1 postcode as a proxy for more pupils living in SIMD 1 (see methods section), a comparison between access in schools with a more deprived catchment area and the local authority average could be made between academic years 2011/12 and 2016/17. Figures 9 and 10 show there is wide variation between local authorities but the average percentage of schools accessing residential outdoor education is 4% greater in schools located in SIMD 1 than across all schools in both 2011/12 and 2016/17. The local authorities shown in Figures 9 and 10 all have ≥ 3 schools in SIMD 1.

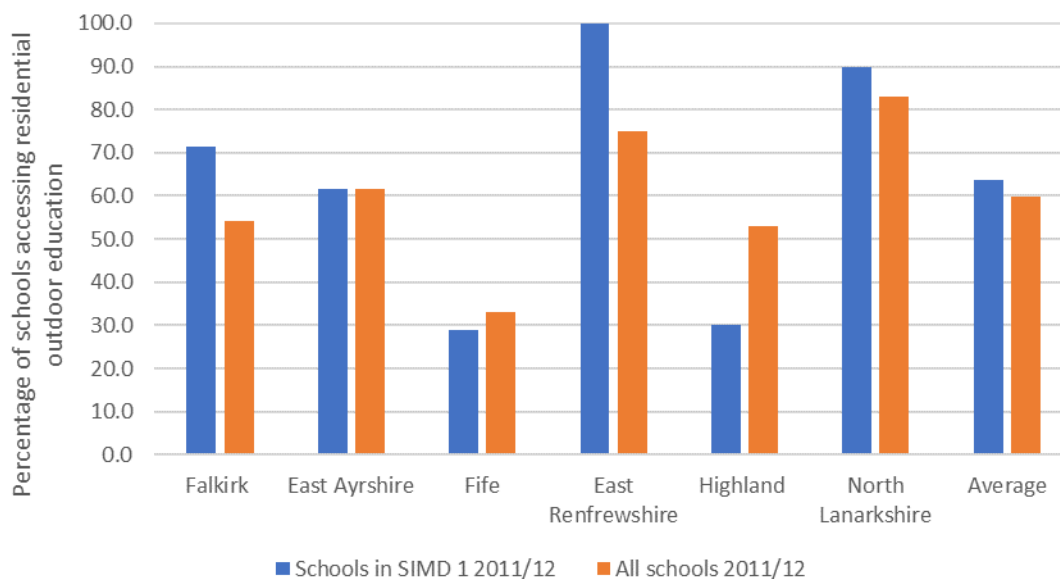


Figure 9: Percentage of schools accessing residential outdoor education where schools are in SIMD 1 compared to all schools in local authority area, during academic year 2011/12

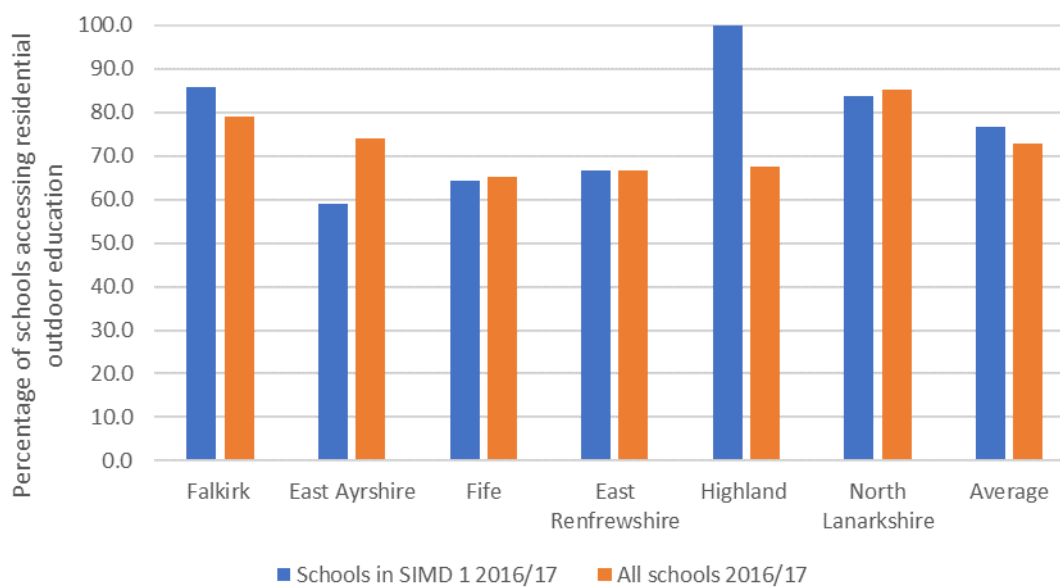


Figure 10: Percentage of schools accessing residential outdoor education where schools are in SIMD 1 compared to all schools in local authority area, during academic year 2016/17

The number of schools located in SIMD 1 changed between academic years 2011/12 and 2016/17 in some local authorities, affecting the percentage of schools seen to be accessing residential outdoor education (Table 1).

Table 1: The number of schools located in SIMD 1 and the number of SIMD 1 schools accessing residential outdoor education in 2011/12 and 2016/17

	Number of schools in SIMD 1 2011/12	Number of SIMD 1 schools accessing residential outdoor education 2011/12	Percentage of SIMD 1 schools accessing residential outdoor education 2011/12	Number of schools in SIMD 1 2016/17	Number of SIMD 1 schools accessing residential outdoor education 2016/17	Percentage of SIMD 1 schools accessing residential outdoor education 2016/17
Falkirk	7	5	71.4	7	6	85.7
East Ayrshire	26	16	61.5	22	13	59.1
Fife	31	9	29.0	28	18	64.3
East Renfrewshire	3	3	100.0	3	2	66.7
Highland	10	3	30.0	4	4	100.0
North Lanarkshire	49	44	89.8	49	41	83.7

Summer vs Winter

Across 15 local authorities, 1,627 outdoor education residentials occurred during academic year 2016/17 (Table 2). Figures for North Lanarkshire and East Renfrewshire are likely to be slightly higher than shown as North Lanarkshire's data only recorded visits to Kilbowie Outdoor Centre and East Renfrewshire's data only included trips to outdoor centres and therefore excluded Duke of Edinburgh trips.

Table 2: Total number of outdoor education residentials per local authority, by term and season

	Term 1 (Aug, Sept)	Term 2 (Oct, Nov, Dec)	Term 3 (Jan, Feb, March)	Term 4 (April, May, June, July)	Total	Winter (Oct - March)	Summer (April - September)
Aberdeenshire	56	6	32	160	254	38	216
Moray	15	10	15	62	102	25	77
Western Isles	4	4	6	12	26	10	16
Falkirk	12	12	17	40	81	29	52
East Ayrshire	10	6	12	56	84	18	66
Fife	25	25	48	72	170	73	97
East Renfrewshire	2	6	4	8	20	10	10
Highland	45	18	29	143	235	47	188
North Lanarkshire	19	33	40	41	133	73	60
Scottish Borders	20	14	12	33	79	26	53
East Dunbartonshire	9	24	17	21	71	41	30
Perth & Kinross	25	17	16	81	139	33	106
Dumfries & Galloway	27	25	39	58	149	64	85
Midlothian	9	3	15	34	61	18	43
Orkney Isles	9	0	0	14	23	0	23
Total	287	203	302	835	1627	505	1122

Across the 15 local authorities detailed in Table 2, during 2016/17 31% of residentials occurred in Winter (October – March), and the remaining 69% occurred in Summer (April – September) (Figure 11).

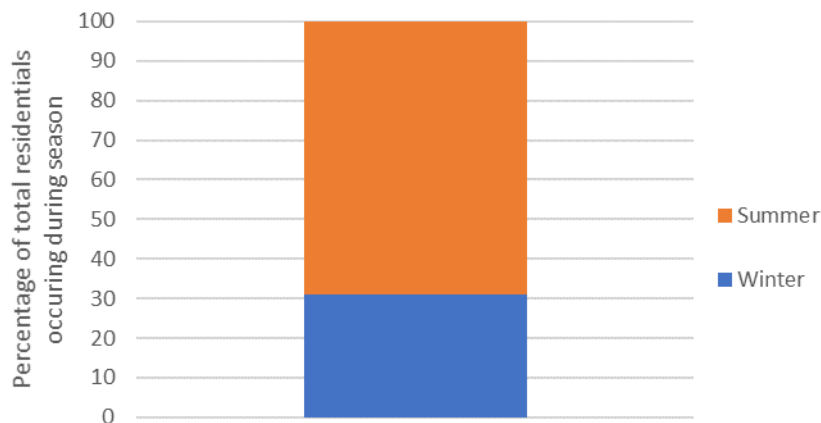


Figure 11: The percentage of outdoor education residentials occurring in summer (April – September) and winter (October – March), across 15 local authorities, during academic year 2016/17

Primary vs Secondary

In 2016/17, the percentage of secondary schools accessing residential outdoor education was higher than the percentage of primary schools accessing residential outdoor education in almost all local authorities (Figure 12). In East Renfrewshire excursion data only included trips to outdoor centres and therefore excluded Duke of Edinburgh.

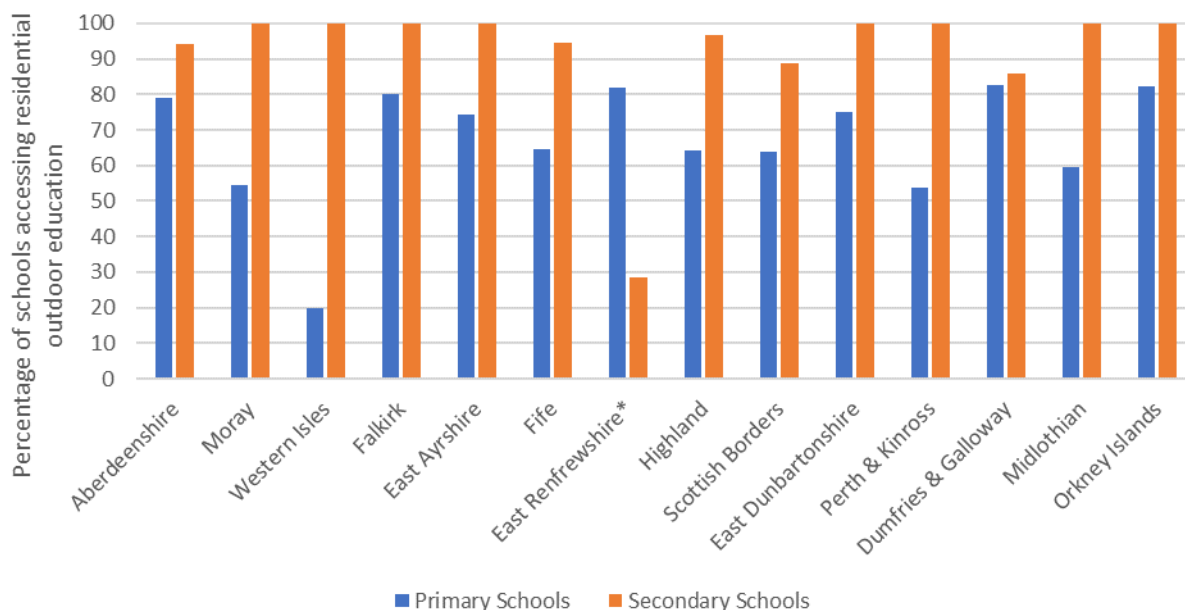


Figure 12: Percentage of primary schools and secondary schools accessing residential outdoor education by local authority during academic year 2016/17

*East Renfrewshire's data did not include Duke of Edinburgh trips.

Discussion

2018 vs 1982

With 123 centres in 1982 and 64 in 2018, there has been a marked decline in the number of outdoor education centres in Scotland over time. However, the 64 centres in operation in 2018 are generally bigger, with an average of 79 beds, compared to an average of 49 beds across the 116 centres where bed number was known in 1982. The largest centre in 1982, Border Park Outdoor Pursuits, had 300 beds while in 2018 PGL Dalguise has 479. Compared to the 9 centres with more than 100 beds in 1982, in 2018 there are 18 centres with more than 100 beds. For details on bed numbers of centres see Appendices 1 and 2. The change from smaller centres to larger centres may reflect the commercialisation of the industry, where businesses can generate bigger profits by providing experiences to larger groups or multiple groups at the same time. However local authority centres have also got larger, for example Edinburgh City Council's centres Benmore and Lagganlia have grown from 48 to 122 beds and 60 to 127 beds respectively from 1982 to 2018 (see Appendices 1 & 2).

Many centres in 1982 were unstaffed bunkhouse style accommodation (Countryside Commission for Scotland, 1983b), which tend to be smaller than the larger commercial operations that are seen today. Changes to health and safety requirements, including the formation of AALA in 1996 (Health and Safety Executive, 2017), may have reduced the number of unstaffed centres, as it has become easier for schools to outsource instructors to run activities, rather than residentials being run solely by teaching staff.

The number of beds in 1982 was greater than 5718 as no bed numbers could be found for 7 centres. If the average number of beds (49) is added for each of these 7 centres we get a best guess of 6061 beds in outdoor education centres in Scotland in 1982. Dropping to 5086 beds in 2018 this is a 16% decrease in bed numbers. However, the population of 4-16 year olds (compulsory school age) also decreased within this time period. In 1982 the population of 4-16 year olds was 985,689 which in the most recent estimate (2016) had dropped to 745,283 (National Records of Scotland, 2017). This calculates as a 24%

decrease in 4-16 year olds in Scotland, a greater decrease than the 16% decrease in outdoor education centre beds.

While the number of beds in outdoor education centres was a useful figure in providing a comparison between 1982 and 2018, bed number may not reflect the number of people accessing residential outdoor education. Both in 1982 and in 2018 centres may not be open all year round, or may be open but not fully occupied. In 1994, Castle Toward was still operating as a residential school, offering outdoor activities as part of its courses (Bloomer, K. pers. comm.). Castle Toward had 80+ beds in 1994, but more often accommodated groups of 30-40, which was also thought to be the case in the 1980s (Wilson, P. pers. comm.). In 2018, Lochranza Centre on the Isle of Arran had 115 beds, but rarely hosts groups of more than 45 for outdoor activities and 75 for field studies. At Lochranza Centre, the group sizes are limited by number of staff as opposed to numbers of beds (Blake, S. pers. comm.).

Castle Toward residential school was included as an outdoor education centre as it was providing AALA licensable activities in the 1980s (Bloomer, K. pers. comm.). However, there were many other residential schools, such as Strathclyde's Caol Ruadh, Forthnethy and St. Columba's operating in the 1980s (Bloomer, K.), that have not been included within this report as there is no evidence they were providing AALA licensable activities. It could also be argued that if children were being sent to a residential school and the parents were not paying for it, this would not fit the clause that AALA licences are only needed when activities are offered *in return for payment* (Health and Safety Executive, 2018a). There is no central database of children's residential establishments (schools and care homes) in Scotland between 1950 and 1995 so identifying what residential schools existed is difficult (Shaw, 2007). As it is thought that most residential schools did not provide AALA licensable activities, their exclusion does not limit analysis within this report.

The number of centres managed by a local authority has significantly decreased from 59% in 1982 to 17% in 2018 (Figure 5). Half of all outdoor education centres in 2018 are managed by a charity (Figure 6) and are therefore able to access funds from sources that

they could not have accessed otherwise. Some local authorities operate arm's length trusts, which may have significant financial contributions from the council, but can also benefit from charitable status and are able to secure other funding. Arm's lengths trusts manage a number of outdoor education centres in Scotland, including Kinlocheil and Torrin, managed by High Life Highland; Kinloch Rannoch and Blackwater, Live Active Leisure, and Low Port, West Lothian Leisure Trust (High Life Highland, 2017; Active West Lothian, 2018; Live Active Leisure, 2018a).

The local council reorganisation of 1996 affected the management of outdoor education in many areas. In the old Strathclyde region, all buildings were distributed to the council area that they were located in (Bloomer, K. pers. comm). This distribution was logical for council houses, schools and hospitals, but there was a lack of consideration for outdoor centres and some council areas ended up with more centres than they required, while others lost centres (Bloomer, K. pers. comm.). The demand for places at Kaimes centre in 1997 far exceeded capacity, however, staff were concerned for the centres future due to budget cuts following the council reorganisation (Cuddihy, 1997). Prior to the reorganisation, Strathclyde aimed to provide every primary school child with the opportunity to attend a residential, and priority was given to children from areas of deprivation, however, following the reorganisation many outdoor centres closed reducing local authority provision of outdoor education (Scottish Herald, 1997). Castle Toward and Ardentinnay centres both closed and reopened (Scottish Herald, 1997) and were subsequently managed by the Actual Reality Trust, a joint venture between Glasgow City Council and East Renfrewshire Council (Actual Reality Trust, 2015), highlighting the changes to management, and the need to adapt, following the 1996 council reorganisation.

Current trends

Current trends show an increase in the percentage of schools accessing outdoor education residentials between 2011/2012 and 2016/2017 (Figure 7). Changes in what is being recorded as an outdoor education residential, such as the inclusion of Duke of Edinburgh Expeditions and visits to commercial centres, will affect the percentage of schools seen to be attending an outdoor education residential. Changes in staff, management and systems

used to record data over the years may have increased the number of outdoor education residential recorded. Additionally, while the percentage of schools accessing residential outdoor education has increased, this does not evidence that the numbers of pupils attending residential has increased.

More residential take place in summer, (April to September) than winter (October to March) (Figure 11), despite the longer school holidays occurring during summer months. Schools may prefer residential during the warmer weather, but there are benefits to attending winter residential. Winter residential build pupils' resilience, longer nights and winter weather allow for new learning opportunities (Learning Away, 2017a). Winter residential may also be more cost effective as the season is typically less busy for providers (Learning Away, 2017a). Attending residential earlier in the school year allows for peer and staff-student relationships to be built, learning to be followed up on in school, and may increase engagement throughout the year (Learning Away, 2017a). The benefits of attending an outdoor education residential earlier in the academic year can be achieved by facilitating winter residential, but also facilitating residential in August and September. Additionally, the Duke of Edinburgh expedition season runs from March to October (The Duke of Edinburgh's Award, 2018a), significantly increasing the number of high schools accessing residential outdoor education in the summer.

A higher percentage of secondary schools access residential outdoor education than primaries (Figure 12). Within local authorities, there tend to be fewer secondary schools than primary schools, and therefore secondary schools tend to have a larger pupil role. The results show the percentage of secondary schools accessed residential outdoor education is high, but this may be a small percentage of the pupil role. Duke of Edinburgh Expeditions will again have a considerable impact on these figures.

The high percentage of secondary residential and summer residential may be attributed to Duke of Edinburgh expeditions. In East Renfrewshire where Duke of Edinburgh Expeditions were not recorded, we see a far smaller percentage of secondary schools attending a residential (Figure 12) and a 50/50 split between summer and winter

residential (Table 2). The Duke of Edinburgh Award are currently trialling some optional changes to the Bronze Award Expedition, which include removing the requirement for participants to camp under canvas and removing the need for a Bronze practice expedition (The Duke of Edinburgh's Award, 2018a). The option to sleep in a bunkhouse or hall may increase the number of winter residential, while the removal of the requirement for a qualifying expedition may reduce the number of residential overall.

SIMD

In schools where >50% of pupils live in SIMD 1, or <50% of pupils live in SIMD 1, there is wide variation in the percentage of schools accessing outdoor education residential between local authorities (Figure 8). From the data presented here, it cannot be said overall, that schools with a greater percentage of pupils from areas of multiple deprivation are less likely to offer residential outdoor education since these data are too variable. The average percentage of schools accessing outdoor education residential where >50% of pupils lived in SIMD 1 was 2% lower than schools where <50% of pupils lived in SIMD 1 across the 6 local authorities where sufficient data was available (Figure 8). However, in 3 local authorities, North Lanarkshire, Highland and the Scottish Borders, the percentage of schools accessing residential outdoor education was higher where >50% of pupils lived in SIMD 1. North Lanarkshire only record visits to their own centre, Kilbowie, Highland operate an arm's length trust including two bunkhouses, and the Scottish Borders use a variety of commercial providers, highlighting that a wide variety of models can provide residential outdoor education to schools with a high percentage of pupils from areas of multiple deprivation. It may be useful for local authorities to look closer at their own statistics, as the data presented here only provide a snapshot for academic year 2016/17 and only consider residential outdoor education.

Using schools with a SIMD 1 postcode as a proxy for more pupils coming from areas of multiple deprivation yields similarly varied results (Figures 9 and 10). The average difference between the percentage of schools offering a residential in SIMD 1 schools compared to all schools is 4% in both 2011/12 and 2016/17, with SIMD 1 schools more likely to offer a residential overall. However, changes in the percentage of SIMD 1

schools accessing residential outdoor education over this period need to be interpreted carefully as the number of schools in SIMD 1 has also changed (Table 1). Highland appears to have made great increases in the percentage of SIMD 1 schools offering a residential between 2011/12 and 2016/17 (30% increased to 100%), but the number of schools in SIMD 1 has also decreased from 10 to 4 (Table 1).

SIMD is used here to attempt to analyse whether socio-economic deprivation has an effect on schools' access to residential outdoor education. However, there is so much variation within local authorities, schools, and years, that it's not an adequate guide. Figures 8, 9, and 10 show the percentage of schools accessing residential, but do not show which pupils are accessing. Individuals from areas of deprivation may still not get equitable access to residential and SIMD ranks mask considerable variation within areas. In Shetland, Orkney, and the Western Isles, there are no data zones within the most deprived 15%, but there are still people experiencing deprivation (Scottish Government, 2016a). Furthermore, across Scotland, two out of three people who are income deprived do not live in areas within the lowest 15% of SIMD (Scottish Government, 2016a). The Pupil Equity Fund is based on free school meals rather than SIMD, which provides a more accurate measurement of the number of pupils experiencing socio-economic deprivation, and the number of free school meal pupils may be a better tool for future analysis.

Challenges and triumphs of inclusion spending

The Scottish Attainment Fund and Pupil Equity Fund (PEF) can both be used to enable access to outdoor education, using outdoor education as a means of closing the attainment gap. Many local authorities have targeted funds to outdoor education. East Ayrshire have appointed a John Muir Award and Attainment Project Officer to maximise the potential of outdoor learning, with particular focus on closing the attainment gap (East Ayrshire Council, 2017). Falkirk High School have recently appointed a Targeted Wider Achievement Leader to facilitate outdoor education and raise attainment, funded by PEF (Webster, K. pers. comm.). West Lothian created Outdoor Learning Hubs, running 12 weeks of outdoor learning, which was seen to add an average of 6 months of mental arithmetic, 2 months of general maths and improve attitudes towards learning (Harvey et

al., 2017). Many high schools including Shawlands Academy, Glasgow; Glenwood High School, Fife; Penicuik High School, Mid Lothian; and Craigie High School, Dundee; have committed PEF funding to Duke of Edinburgh (Cumming, A. pers. comm.).

However, the Scottish Attainment Fund and PEF are not specifically for outdoor education, and may be used in many ways. Money may be spent on classroom equipment and technology, amongst other purposes. The decision as to how PEF is spent lies with the individual school and therefore the implications for outdoor education vary with the priorities of the decision makers in each school.

Continued budget cuts mean that even with additional finance from the Scottish Attainment Fund and PEF, 23 out of 32 local authorities have had their spending on education cut since 2010/11 (Seith, 2017). It could be argued that PEF will simply fill gaps that are being created from other cuts. This can be illustrated by the Pedagogy Team in Fife, a secondment group that support staff in schools across the region (Education Scotland, 2018). Funding for the Pedagogy Team used to be provided centrally, but now schools who opt to have the Pedagogy Team support their staff must pay for it out of their PEF funding (Thompson, P. pers. comm.).

In Inverclyde, funding was in place from the Education Department to pay for every P6 pupil to attend an outdoor residential. Last academic year this funding was halved, and this school year that funding is no longer in place. Most schools in Inverclyde have managed to maintain a residential, with parents being able to pay the cost in instalments, but some schools have moved away from residentials and are organising day visits instead (Hyett, G. pers. comm.). It's worth noting that in most schools across Scotland, the cost of residentials is being met by parents and guardians. Where paying for a residential is a barrier to pupils accessing residential outdoor education, PEF may be used to reduce the cost to parents.

Current SNP policy, where more funding and autonomy is being given to schools, coupled with reductions in central council budgets are likely to impact local authority funded outdoor education centres. For example, Glasgow City's Blairvadach Outdoor

Education Centre has seen cuts in council funding, however, many schools are spending PEF funding on attending residentials at Blairvadach (Thompson, P. pers. comm.). The move away from centralised funding may make the future for the remaining local authority centres in Scotland more tenuous. A similar situation was seen in 1990 where Local Management of Schools gave schools more control over funding and led to the closure of outdoor centres in England (Ogilvie, 2013).

Non-residential outdoor education

The lower cost of non-residential outdoor education makes day trips an attractive alternative where budgets are tight. While there are many benefits to residential outdoor education (Christie et al., 2014; The Outward Bound Trust, 2014; Kendall and Rodger, 2015; Scrutton, 2015) outdoor education is also valuable in a non-residential form (Capaldi et al., 2015; Mutz and Müller, 2016; Harvey et al., 2017).

In Shetland, some schools take groups to the mainland for residentials, but there is also a strong provision of outdoor learning within school time. Around 80% of S2 pupils gain access to a series of 4 outdoor education days within the year, provided free of charge by the local authority (Richardson, P. pers. comm.). As well as local authority provision, many schools utilise outdoor learning within their school grounds and local area. Gaining an understanding of what non-residential outdoor education is being offered in individual schools across Scotland is challenging as records are less likely to be held centrally.

Non-outdoor education residentials

This report focuses on outdoor education residentials, those where experiential learning occurs in the outdoors. City trips, cultural trips and non-adventurous sports (football, rugby, hockey) were removed before analysis took place. The *Brilliant Residentials* campaign highlights that high quality residentials should provide new and memorable experiences (Kendall and Rodger, 2015), which for many pupils can be achieved through outdoor education. However, in the Western Isles, it was noted that when choosing residentials, schools tend to choose city visits or similar, as these experiences are more novel to pupils (Oakley, I. pers. comm.).

Non-school access

Another aspect of outdoor education that would be interesting to understand, but which is difficult to assess, is non-school access to the outdoors. Youth groups and organisations such as the Scouts and Guides, participate in a wide range of outdoor education, both day trips and residential. Membership of Scouts in Scotland has risen for 11 successive years, with over 38,000 youth members in Scotland (Scouts Scotland, 2017b). It is possible that more young people are gaining access to outdoor education through groups such as these, however access is not always equitable.

In Scotland in 2017/18, 20% of local authority participation in Duke of Edinburgh was from SIMD deciles 1 – 3 (the most deprived 30% of areas), whereas 17% of participation from across all sectors was from SIMD deciles 1 – 3 (Cumming, A. pers. comm.), suggesting that access to Duke of Edinburgh may be less equitable outside of local authority provision. The Scout Association have recognised the need to reach more children from areas of deprivation. The Scouts' *Better Prepared* campaign aimed to offer Scouting in 200 of the most deprived areas of the UK by 2018 (The Scout Association, 2014) and across the UK, start-up grants are available to groups in the 10% most deprived areas (Scouts Scotland, 2017a). No research could be found detailing the current reach of Scouting to areas of multiple deprivation, or the equity of access within these areas.

Adventure activities vs adventure theme parks

While outdoor education has been discussed in broad terms throughout this study, the quality of outdoor education can also be variable. The nature of what defines a quality outdoor experience is highly subjective and will vary with the aims of the group. The most effective personal development occurs outside a person's comfort zone, in the area that Mortlock (1984) describes as *frontier adventure* or what may be referred to as the *stretch zone* or *learning zone* (Wright, 2016). For most young people to reach this stage of learning, there needs to be a degree of effort required from the participant. Rubens (1998, cited in Higgins, 2002) refers to *narrow adventure*, where activities are short in

duration, require little effort from the participant and focus on high thrills. Where input from the participant does not affect the outcome of the activity, this may be considered an *adventure theme park* (Taveren, M. pers. comm.). There is a need for outdoor learning experiences to be of a high quality and to push participants into their stretch zone for the biggest positive impacts to be seen.

A residential experience can push students beyond their comfort zone, foster stronger relationships, develop independence, team work and maturity (Kendall and Rodger, 2015). The *Brilliant Residential*s campaign outlines criteria that make for high-quality residential experiences (Learning Away, 2017b). These criteria include that *Brilliant Residential*s should be: integrated with the school curriculum; designed and lead by teachers; inclusive and affordable; part of a progressive programme of experiences; include a wide range of new and memorable experiences; and be evaluated rigorously (Learning Away, 2017b). If we continue to see the move away from local authority centres, towards more commercial providers, it is important that educators keep looking for the best possible experiences for young people, which will challenge them to an appropriate level.

Data needs and future analysis

To assess Scottish pupils' access to residential outdoor education, records must be consistent over time and comparable between local authorities. The wide variation in information recorded and the format information is recorded in presents difficulties for gaining data that is comparable nationally. Changes in management and systems over time means that data within individual local authorities was often not comparable over the last 5 years. The use of the EVOLVE data platform is beneficial for consistent data recording, particularly useful for making comparisons over time or on a national scale. However, unless there is a national buy in to EVOLVE the cost may be off-putting for some local authorities. Many local authorities have created free systems that work well within their local authority.

As well as a wider national assessment of schools' provision of residential outdoor education, there are many other avenues for future research. The choice made by schools

of what type of residential to offer, be that outdoor education, a city trip or a cultural trip etc, is under researched. With Glasgow and Edinburgh councils owning outdoor education centres (Appendix 1), and schools from the Western Isles preferring city trips or similar (Oakley, I. pers. comm.), is it the case that schools seek out the most novel experiences for pupils and therefore rural schools prefer urban residential and vice versa?

Conclusions

Data presented within this report show the following:

- 1) Between 1982 and 2018, the number of residential outdoor education centres in Scotland has reduced from 123 to 64 (Figures 3 & 4). The number of beds have reduced from over 5718 to 5086 (Figures 3 & 4), with bed numbers unknown for 7 centres in 1982. If the average number of beds (49) is added for each of these 7 centres, then a 16% decrease in bed numbers is seen between 1982 and 2018. However, the population of 4 – 16 year olds has decreased by 24% over the same time period (National Records of Scotland, 2017), reducing demand. Management of residential outdoor education centres has moved towards more commercial and charity funding, with only 17% of outdoor centres being managed by local authorities in 2018 compared to 59% in 1982 (Figure 5). In 2018, 50% of residential outdoor education centres are managed by a charity (Figure 6).
- 2) Between academic years 2011/12 and 2016/17 the data show an increase in the percentage of schools recorded as accessing residential outdoor education in 7 out of 9 local authorities (Figure 7).
- 3) Across 15 local authorities, an average 69% of outdoor education residential occur in the summer months (April – September). A higher percentage of secondary schools than primary schools accessed residential outdoor education in all local authorities except East Renfrewshire, where Duke of Edinburgh excursions were not included in the data.

- 4) From these data it cannot be said socio-economic deprivation has an effect on schools' access to residential outdoor education since these data are too variable.
- 5) The Scottish Attainment Fund and Pupil Equity Fund have been used to support the provision of and access to outdoor education in some areas, but spending of inclusion funding varies greatly between schools and local authorities.

From these results it can be argued that the 1970s and 80s have been viewed through rose tinted spectacles, as provision was different, but not necessarily better. There were more centres in 1982, but these were generally smaller, and across Scotland the ratio of beds to children was lower. The management of residential outdoor education centres has changed. Local authorities have made decisions based on economics, selling buildings they are financially unable to upkeep and contracting services to trusts.

Over the past 5 years there has been an increase in the percentage of schools accessing residential outdoor education. This increase may be partially attributed to changes in recording of excursions, which was often different between 2011/12 and 2016/17. These figures show more schools accessing residential outdoor education, but do not show whether more pupils are accessing residential outdoor education.

Summer residential are preferred, and more secondary schools access residential outdoor education than primary schools. The high percentage of summer residential by secondary schools is likely influenced strongly by the March to October Duke of Edinburgh expedition season. Learning Away (2017a), highlight that winter residential are more cost effective, can build pupil's resilience and allow for new learning opportunities. Residential earlier in the school year are also beneficial in fostering relationships and allowing learning to be integrated back in the classroom (Learning Away, 2017a). Winter residential are currently underutilised by local authorities.

Between local authorities there was a wide variation in the percentage of schools accessing residential outdoor education in schools where greater than or less than 50% of pupils live in SIMD. Similar variability was seen using schools with a SIMD 1 postcode

as a proxy for more pupils coming from areas of multiple deprivation. SIMD can be used cautiously to predict areas where more people experience multiple deprivation but we should be wary of placing too much weight on the results as it masks considerable variation within areas. The resolution of data presented in this report do not give an insight into the deprivation experienced by individual pupils and therefore cannot evidence the effect socio-economic deprivation has on access to residential outdoor education at a family or individual level.

Residential outdoor education is primarily funded by parents rather than schools but economic barriers to access may be alleviated by funds such as PEF if schools choose to target funds in this way. Outdoor education can be used to raise attainment (Harvey et al., 2017; Quibell et al., 2017), and inclusion spending has been used to set up outdoor learning hubs (Harvey et al., 2017), appoint outdoor learning facilitators ((East Ayrshire Council, 2017; Webster, K. pers. comm) and support Duke of Edinburgh (Cumming, A. pers. comm.). However, even with the Scottish Attainment Fund and PEF, 23 out of 32 local authorities have had their spending on education cut since 2010/11 (Seith, 2017), and over time it has been seen that when budgets are tight, outdoor education is one of the first provisions to be cut (Countryside Commission for Scotland, 1983a; Cuddihy, 1997; Ogilvie, 2013). Under the policy change from central budgeting to individual school budgets local authority outdoor education centres are likely to experience budget cuts making their futures uncertain. With more funding controlled by individual schools, schools have more choice as to where to spend that money, but the quality of residential outdoor education should be maintained by seeking residential outdoor education that stretch pupils comfort zones and follow the recommendations of the *Brilliant Residential* campaign (Learning Away, 2017b). With PEF only extending to 2019, many schools' budgets will be reduced, again having potentially limiting effects on residential outdoor education.

There is mounting evidence that demonstrates the positive value of residential outdoor education (Christie et al., 2014; Kendall and Rodger, 2015; Scrutton, 2015; Telford, 2010; The Outward Bound Trust, 2014; Uhls et al., 2014). For young people to benefit from high quality residential outdoor education, providers of these services must exist and access must be equitable. Future research into the support offered by local authorities

and schools to overcome barriers to residential outdoor education would be beneficial. Local authorities should continue to champion high quality residential outdoor education experiences as once infrastructure is lost, this will be difficult to reinstate.

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Appendix 1 - Residential Outdoor Education Centres, 2018

Centre / Provider Name	Centre Post Code	Grid Reference	Management	Bed Numbers	Data Sources
Abernethy Ardeonaig	FK21 8SY	NN 66578 35121	Charity	58	(Abernethy, 2017b)
Abernethy Ardgour School of Adventure Leadership	PH33 7AD	NM 93957 59356	Charity	32	(Abernethy, 2017c)
Abernethy Barcaple	DG7 2AP	NX 67733 57254	Charity	69	(Abernethy, 2017d)
Abernethy Nethybridge	PH25 3ED	NJ 01909 20949	Charity	83	(Abernethy, 2017e)
Active Highs Ltd	PH34 4EA	NN 29167 96971	Commercial Company	5	(Active Highs, 2018)
Active Outdoor Pursuits, Cairngorm Adventure Centre	PH20 1AT	NN 71628 98988	Commercial Company	68	(Cairngorms Business Partnership, 2016)
Aquaplay Scotland	AB38 7AZ	NJ 27798 49219	Commercial Company	6	(Aquaplay Scotland, 2017)
Ardchoire Response Centre	PA34 4SX	NM 82426 28794	Commercial Company	1	(The Care Inspectorate, 2015)
Ardentinny Outdoor Education Centre	PA23 8TR	NS 18812 87444	Charity	120	(Actual Reality, 2015)
Ardmay House Outdoor Centre	G83 7AH	NN 28165 02533	Commercial Company	66	(Ardmay House, 2018)
Ardroy Outdoor Education Centre	PA24 8AE	NS 19190 99884	Charity	83	Thompson, P. pers. comm.
Arran Outdoor Education Centre	KA27 8PL	NS 04463 32367	Local Authority	44	(Arran Outdoor, no date)
Auchengillan Outdoor Centre	G63 9BA	NS 51859 80374	Charity	150	(Auchengillan Outdoor Centre, 2018a)
Badaguish Cairngorm Outdoor Centre	PH22 1QU	NH 95672 11314	Charity	210	MacKenzie, S. pers. comm.
Benmore Centre for Outdoor Education	PA23 8QX	NS 13869 85423	Local Authority	122	(Benmore Centre for Outdoor Learning, 2018)
Blairvadach Outdoor Education Centre	G84 8NN	NS 25971 85404	Local Authority	74	Thompson, P. pers. comm.
Carlingwark Outdoor Education Centre	DG7 1EZ	NX 76551 61676	Local Authority	34	(Dumfries and Galloway Council, 2017)
Craggan Outdoors	PH26 3NT	NJ 01879 26342	Commercial Company	60	(Craggan Outdoors, 2018a)
Cromdale - Adventure Aberdeen	PH26 3LN	NJ 07500 28505	Local Authority	47	Duthie, S. pers. comm.
East Lothian Council Outdoor Learning Service, Innerwick	EH42 1SE	NT 72105 73907	Local Authority	36	(East Lothian Council Outdoor Learning Service, 2018)
Fairburn Activity Centre Ltd.	IV6 7UT	NH 46936 52541	Commercial Company	28	Tosh, E. pers. comm.
Firbush Point Field Centre	FK21 8SU	NN 64526 35110	Charity	41	Rawlinson, S. pers. comm.
Galloway Activity Centre Ltd	DG7 3NQ	NX 66214 73792	Commercial Company	56	Sharp, B. pers. comm.

Glencoe Outdoor Centre	PH49 4HS	NN 10150 58839	Charity	35	Murray, S. pers. comm.
Glenmore Lodge	PH22 1QU	NH 95672 11314	Commercial Company	81	Glenmore Lodge pers. comm.
Gulabin Lodge Outdoor Centre	PH10 7QE	NO 10378 69930	Commercial Company	51	(Gulabin Lodge Outdoor Centre, 2011)
Hebridean Pursuits Ltd, Tavool House, The Roses Project	PA69 6EU	NM 46887 27221	Charity	20	(Hebridean Pursuits Ltd, no date)
High Life Highland, Kinloch Eil Outdoor Centre	PH37 4LS	NM 89491 81080	Charity	14	(High Life Highland, 2017)
High Life Highland, Torrin Outdoor Centre	IV49 9BA	NG 57740 20759	Charity	18	(High Life Highland, 2017)
Kilbowie Outdoor Centre	PA34 4PF	NM 84119 29058	Local Authority	151	Forbes, D. pers. comm.
Kindrogan Field Centre	PH10 7PG	NO 05472 62942	Charity	115	(Field Studies Council, 2015)
Lagganlia Centre for Outdoor Learning	PH21 1NG	NH 85392 03992	Local Authority	127	(Lagganlia Centre for Outdoor Learning, 2012)
LHYCA Scaladale Centre	HS3 3AB	NB 19145 11313	Charity	28	(Scaladale Centre, 2017)
Live Active Leisure, Blackwater	PH10 7LH	NO 13350 57703	Charity	18	(Live Active Leisure, 2018a)
Live Active Leisure, Kinloch Rannoch	PH16 5PQ	NN 66222 58849	Charity	24	(Live Active Leisure, 2018b)
Loch Insh Watersports Centre	PH21 1NU	NH 82661 03292	Commercial Company	140	Dunge, B. pers. comm.
Lochranza Centre	KA27 8HL	NR 93082 50622	Commercial Company	115	Blake, S. pers. comm.
Lockerbie Manor	DG11 2RG	NY 13807 83572	Commercial Company	246	(Manor Adventure, no date)
Low Port Centre	EH49 7HZ	NT 00430 77227	Charity	36	(Active West Lothian, 2018)
Orkney Islands Council, Birsay	KW17 2LY	HY 25588 27186	Local Authority	26	(Orkney Islands Council, 2018a)
Orkney Islands Council, Hoy	KW16 3NJ	HY 23471 03503	Local Authority	32	(Orkney Islands Council, 2018b)
PGL Travel Ltd - Dalguise	PH8 0JX	NN 99170 47431	Commercial Company	479	Bishop, L. pers. comm.
Raasay Outdoor Centre Ltd.	IV40 8PB	NG 54885 36573	Commercial Company	87	Misailidou, N. pers. comm.
Ridgway Adventure Ltd	IV27 4RB	NC 20938 50868	Commercial Company	55	Ridgway, R. pers. comm.
Rock UK Adventure Centres - Whithaugh Park	TD9 0TY	NY 49280 88212	Charity	192	(Rock UK, 2018)
Scottish National Centre Cumbrae	KA28 0HQ	NS 17747 57203	Commercial Company	44	(Sportscotland Cumbrae, 2016)
Scout Adventures Fordell Firs	KY11 7HQ	NT 14210 85484	Charity	67	(The Scout Association, 2016)
Scripture Union Ltd - Lendrick Muir	KY13 0QA	NO 02383 00437	Charity	152	(SU Scotland, 2016)
Scripture Union Scotland Ltd - Alltnacriche	PH22 1PZ	NH 88080 10774	Charity	59	(Scripture Union Scotland, 2018)
Snowgoose Mountain Centre	PH33 7JH	NN 09648 76708	Commercial Company	40	(Snowgoose Mountain Centre, 2018)

SOEC - Belmont Centre	PH12 8TG	NO 28305 43451	Charity	204	Lamb, K. pers. comm.
SOEC - Broomlee Centre	EH46 7BU	NT 15576 50699	Charity	170	Lamb, K. pers. comm.
SOEC - Dounans Centre	FK8 3UT	NN 52758 01161	Charity	156	Lamb, K. pers. comm.
South Ayrshire Council - Educational Services, Dolphin House	KA19 8JX	NS 23612 10309	Local Authority	32	(South Ayrshire Council, 2018)
The Camas Centre	PA67 6DX	NM 34725 23238	Charity	40	Muckart, C. pers. comm.
The Compass Christian Centre Ltd.	PH10 7QD	NO 12733 68344	Charity	72	(Compass Christian Centre, 2018a)
The Lochgoilhead Centre	PA24 8AQ	NN 19983 01382	Charity	152	(Lochgoilhead National Activity Centre, 2018b)
The National Trust for Scotland, Kintail Outdoor Centre	EH11 4DF	NT 18471 71020	Charity	20	(National Trust for Scotland, 2018a)
The Outward Bound Trust Loch Eil Centre	PH33 7NN	NN 06618 77980	Charity	128	Fraser, S. pers. comm.
Uist Outdoor Centre	HS6 5AE	NF 91788 68955	Commercial Company	20	(Hebrides, no date)
Venture Trust	IV54 8ND	NG 71284 45816	Charity	50	(Venture Mor, 2018)
Whitewave : Skye's Outdoor Centre	IV51 9YN	NG 38757 67629	Commercial Company	19	(Whitewave, no date)
William-Angus Maclean t/a Wild Diamond	PA77 6XA	NL 97998 47134	Commercial Company	12	(Wild Diamond, 2018)
Wiston Lodge	ML12 6HT	NS 95732 31873	Charity	66	(Wiston Lodge, 2017a)

Appendix 2 - Residential Outdoor Education Centres, 1982

Centre Name	Grid Reference	Management	Bed Numbers	Data Sources
Abernethy Outdoor Centre, Nethybridge	NJ 011215	Charity/Company	88	(Countryside Commission for Scotland, 1983b; Ogilvie, 2013; Abernethy, 2017a)
Aboyne Academy and Deeside Residential Unit	NO 526985	Local Authority	48	(Countryside Commission for Scotland, 1983a, 1983b)
Achanellan, Acharacle	NM 748678	Charity/Company	30	(Countryside Commission for Scotland, 1983a, 1983b)
Ae Valley Outdoor Centre, Parkgate	NX 973923	Local Authority	20	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Angus House, Edzell, Brechin	NO 604687	Local Authority	29	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983b)
Applecross Centre	NG 7134 45816	Charity/Company		(Ogilvie, 2013; Thompson, P. pers. comm.; Venture Mor, 2018)
Ardentinny	NS 188874	Local Authority	54	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983b; Ogilvie, 2013; Ardentinn Outdoor Education Centre, 2015)
Ardroy Outdoor Centre, Lochgoilhead	NS 194996	Local Authority	34	(Countryside Commission for Scotland, 1983b; Ogilvie, 2013; Ardroy Outdoor Education Centre, 2018)
Ardvourlie Adventure/Expedition Centre	NB 186107	Charity/Company	14	(Countryside Commission for Scotland, 1983a, 1983b; Scaladale Centre, 2017)
Arran Outdoor Centre, Shiskine	NR 912298	Charity/Company	36	(Countryside Commission for Scotland, 1983a, 1983b; BBC, 2011c; Ogilvie, 2013)
Arrochar Outdoor Centre	NN 303043	Local Authority	40	(Arrochar Tarbet & Ardlui Heritage Group, no date; Countryside Commission for Scotland, 1983a, 1983b; Ogilvie, 2013)
Atholl Centre Pitlochry	NN 941580	Charity/Company	44	(Countryside Commission for Scotland, 1983b)
Auchendaff Outdoor Centre, By Douglas, Lanark	NS 782236	Local Authority	-	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a; Landmark Information Group, 1979)

Auchengillan Camping and Training Estate, Blane field + Glengoyne lodge	NS 518803	Charity/Company	143	(Countryside Commission for Scotland, 1983a, 1983b; Auchengillan Outdoor Centre, 2018b)
Auchintibber Outdoor Centre, By High Blantyre	NS 674550	Local Authority	24	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Badenoch Christian Centre, Kincaig	NH 831058	Charity/Company	32	(Countryside Commission for Scotland, 1983a, 1983b; Cairngorms Christian Centre, 2017; Compass Christian Centre, 2018b)
Ballater Outdoor Centre	NO 365955	Local Authority	36	(Countryside Commission for Scotland, 1983a, 1983b; McDonald, G. pers. comm.)
Beattock Outdoor Activity Centre	NT 077025	Charity/Company	28	(Countryside Commission for Scotland, 1983b)
Beattock Summit Outdoor Centre by Elvanfoot	NS 996148	Local Authority	20	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Belmont Camp School, Meigle	NO 283435	Charity/Company	290	(Countryside Commission for Scotland, 1983b; Scottish Outdoor Education Centres, 2011; Ogilvie, 2013)
Benmore Adventure Centre, By Dunoon	NS 138854	Local Authority	48	(Countryside Commission for Scotland, 1983b; Ogilvie, 2013; Benmore Centre, 2018)
Birsay Outdoor Centre	HY 252267	Local Authority	26	(Countryside Commission for Scotland, 1983b)
Blairvadach Sailing and Outdoor Centre, Rhu	NS 262852	Local Authority	74	(Countryside Commission for Scotland, 1983a, 1983b; Ogilvie, 2013; Blairvadach Outdoor Education Center, 2018)
Bonaly Camping and Training Centre, Edinburgh	NT 212678	Charity/Company	56	(Countryside Commission for Scotland, 1983a, 1983b; South East Scotland Scouts, 2015)
Bonskeid House, Pitlochry	NN 899610	Charity/Company	115	(Countryside Commission for Scotland, 1983b; Gazetteer for Scotland, 2016a)
Border Park Outdoor Pursuits	NY 522916	Charity/Company	300	(Countryside Commission for Scotland, 1983a, 1983b)
Brodick Adventure Camp, Cladach, nr Brodick	NS 014378	Charity/Company	28	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983b)
Broomlee Camp School, West Linton	NT 156507	Charity/Company	270	(Countryside Commission for Scotland, 1983b; Scottish Outdoor Education Centres, 2011; Ogilvie, 2013)
Caerketton Ski Lodge, Feshiebridge	NN 856038	Local Authority	8	(Countryside Commission for Scotland, 1983a, 1983b; Lagganlia Lodges, 2012)

Cairngorm Outdoor Activities (Ardenbeg), Grantown-on-Spey	NJ 030276	Charity/Company	32	(Countryside Commission for Scotland, 1983a, 1983b; Westacott, 2012; Craggan Outdoors, 2018b)
Caldercruix Outdoor Pursuits Centre, Airdrie Road, Caldercruix	NS 809675	Local Authority	36	(Bloomer, K. pers. comm.; Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Camas Adventure Camp, Mull	NM 34725 23238	Charity/Company	20	(Countryside Commission for Scotland, 1983a, 1983b; The Iona Community, 2018)
Carnoch Outdoor Centre, Glencoe Village	NN 101590	Charity/Company	36	(Countryside Commission for Scotland, 1983a, 1983b; Glencoe Outdoor Centre, 2017)
Castle Toward	NS 11515 68172	Local Authority	80	(Bloomer, K. pers. comm.; Wilson, P. pers. comm.)
Compass Ski and Outdoor Centre, by Blairgowrie	NO 133683	Charity/Company	46	(Countryside Commission for Scotland, 1983a, 1983b; Compass Christian Centre, 2018b)
Coull Outdoor Centre, by Aboyne	NJ 515034	Local Authority	20	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Marr Area Committee, 2000)
Craggan, by Killin	NN 663358	Charity/Company	32	(Countryside Commission for Scotland, 1983a, 1983b; Edinburgh Leith and District Battalion Boys Brigade, 2018)
Craigencallie Outdoor Centre	NX 503780	Local Authority	20	(Countryside Commission for Scotland, 1983a, 1983b; Dumfries and Galloway Council, 2003; Galbraith, 2017)
Craigenrae Activity Centre, by Bargrennan	NX 354893	Local Authority	14	(Countryside Commission for Scotland, 1983a, 1983b; McCrorie, 2012)
Craigie Outdoor Centre, Craigie, nr Kilmarnock	NS 437324	Local Authority	20	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Craigmalloch, by Dallmellington	NX 484949	Local Authority	14	(Countryside Commission for Scotland, 1983a, 1983b; Mulgrew, 2003; East Ayrshire Council, 2004)
Craikhope Outdoor Centre, Hawick	NT 323 055	Local Authority	36	(Andre Santos, 2017; Landmark Information Group, 1985; Smith, G. pers. comm.)
Crathes Base Camp	NO 734968	Charity/Company	27	(Countryside Commission for Scotland, 1983b)
Cromdale Outdoor Centre, Cromdale	NJ 076286	Local Authority	40	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Aberdeen City Council, 2017)

Cullen Residential Centre	NJ 513672	Local Authority	43	(Countryside Commission for Scotland, 1983a, 1983b; Moray Council, 2017)
Cumrae Water Sports Centre, Largs	NS 182581	Charity/Company	30	(Countryside Commission for Scotland, 1983a, 1983b; Sports Scotland, 2018)
Dalguise Centre, Dunkeld	NN 991478	Charity/Company	80	(Countryside Commission for Scotland, 1983a, 1983b; Gazetteer for Scotland, 2016b)
Dalnaglar, Glenshee	NO 146636	Charity/Company	30	(Countryside Commission for Scotland, 1983a, 1983b)
Dounans, Aberfoyle	NN 528013	Charity/Company	270	(Countryside Commission for Scotland, 1983b; Scottish Outdoor Education Centres, 2011; Ogilvie, 2013)
Drumclog Adventure, Strathaven	NS 641389	Local Authority	36	(Countryside Commission for Scotland, 1983a, 1983b)
Dulnain Bridge Outdoor Centre	NH 996248	Charity/Company	70	(Countryside Commission for Scotland, 1983a, 1983b)
Dykehead Residential Centre, by Port of Menteith	NN 598980	Charity/Company	29	(Countryside Commission for Scotland, 1983a, 1983b)
Earnhill House, Forres	NJ 015610	Local Authority	23	(Countryside Commission for Scotland, 1983a, 1983b; BBC, 2011b)
Elphin Outdoor Centre	NC 21386 11254	Local Authority	-	(Countryside Commission for Scotland, 1983a; Google Maps, 2018b)
Faskally Outdoor Centre, by Pitlochry	NN 917599	Local Authority	62	Countryside Commission for Scotland (1983b) (Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Ogilvie, 2013; Faskally Christian Trust, 2017)
Fearnan Outdoor Residential Centre	NN 717444	Local Authority	20	(Countryside Commission for Scotland, 1983a, 1983b)
Findhorn Sailing/Residential Centre	NJ 053638	Local Authority	24	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Fintry Outdoor Centre	NS 616866	Local Authority	16	(Countryside Commission for Scotland, 1983a, 1983b)
Finzean Outdoor Centre, by Banchory	NO 592933	Local Authority	30	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983b; Birse Community Trust, 2015)
Firbush Point Field Centre, By Killin	NN 603337	Charity/Company	46	(Countryside Commission for Scotland, 1983b; Ogilvie, 2013; The University of Edinburgh, 2018)

Fordell Firs Camping and Training Estate, by Dunfermline	NT 143855	Charity/Company	50	(Countryside Commission for Scotland, 1983a, 1983b; The Scout Association, 2016)
Garelochhead Outdoor Centre. Shore Road, Garelochhead	NS 238911	Local Authority	40	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; East Dunbartonshire Council, 2006; Ogilvie, 2013; Project 81, 2018)
Garry Gualach Ltd, Invergarry, Glengarry	NH 172005	Charity/Company	21	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983b)
Glaisnock Residential Centre	NS 575179	Local Authority	60	(Countryside Commission for Scotland, 1983a, 1983b; The Herald, 2001; SenScot, 2006)
Glengonnar Camp School, Abington	NS 932230	Charity/Company	270	(Countryside Commission for Scotland, 1983b; Lamb, K. pers. comm. Ogilvie, 2013)
Glenmore Lodge, Avimore	NN 987095	Charity/Company	62	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; McEwan, 2008; Glenmore Lodge, 2018)
Gowanpark Outdoor Centre	NS 832474	Charity/Company	-	(Countryside Commission for Scotland, 1983a; Girlguiding South Lanarkshire, 2018)
Grantshouse Outdoor Education Centre	NT 810656	Local Authority	46	(Countryside Commission for Scotland, 1983a, 1983b; The Berwickshire News, 2005)
Hoy Outdoor Centre, Hoy	HY 234036	Local Authority	20	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Orkney Islands Council, 2018b)
Inch of Arnhall Residential Centre, Edzell	NO 613692	Local Authority	33	(Countryside Commission for Scotland, 1983a, 1983b; Education and Recreation Committee, 2000)
Innerwick Outdoor Education Residential Centre	NT 724739	Local Authority	26	(Countryside Commission for Scotland, 1983a, 1983b; Innerwick Exhibition, 2003; East Lothian Council, 2018)
Inverey Outdoor Centre, Braemar	NO 085893	Local Authority	12	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Marr Area Committee, 2000)
Inverliever Lodge, Ford, By Lochgilphead	NM 895059	Charity/Company	48	(Countryside Commission for Scotland, 1983b)

John Ridgeway School of Adventure, Ardmore, Riconich,	NC 208510	Charity/Company	66	(John Ridgway, 1970; Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983b; Ogilvie, 2013)
Jubilee Log Cabin, by Newton Stewart	NX 449705	Local Authority	20	(Countryside Commission for Scotland, 1983a, 1983b)
Kaimes Outdoor Education Centre, Muirkirk	NS 696264	Local Authority	44	(Countryside Commission for Scotland, 1983a, 1983b; Cuddihy, 1997; British Listed Buildings, 2000)
Killearn Outdoor Centre	NS 524862	Local Authority	20	(Countryside Commission for Scotland, 1983a, 1983b)
Kilmory, Arran	NS 962215	Local Authority	24	(Countryside Commission for Scotland, 1983a, 1983b)
Kilncadzow Outdoor Centre, by Carluke	NS 885488	Local Authority	24	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Kinloch Rannoch Outdoor Residential Centre	NN 663589	Local Authority	26	(Countryside Commission for Scotland, 1983a, 1983b; Live Active Leisure, 2018b)
Kinlocheil Outdoor Centre	NM 978792	Local Authority	16	(Countryside Commission for Scotland, 1983a, 1983b; High Life Highland, 2017)
Lagganlia Centre for Outdoor Education, Feshiebridge	NH 855038	Local Authority	60	(Countryside Commission for Scotland, 1983b; Lagganlia Centre for Outdoor Learning, 2012; Ogilvie, 2013)
Larkhall Academy Outdoor Centre Wanlockhead (Andrew Gold Field Centre)	NS 877127	Local Authority	40	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Cumming, 1987)
Lauderdale House, Dunbar	NT 683794	Local Authority	54	(Countryside Commission for Scotland, 1983a, 1983b)
Lawers Outdoor Residential Centre, by Killin	NN 678397	Local Authority	16	(Countryside Commission for Scotland, 1983a, 1983b)
Lendalfoot	NX 131900	Local Authority	20	(Countryside Commission for Scotland, 1983a, 1983b; Scottish Sea Kayak Symposium, 2018)
Loch Eil Centre, Achdaliu	NN 057784	Charity/Company	90	(Countryside Commission for Scotland, 1983b; Ogilvie, 2013; The Outward Bound Trust, 2018)
Loch Grannoch Lodge, Gatehouse of Fleet	NX 539686	Charity/Company	28	(Countryside Commission for Scotland, 1983a, 1983b)

Loch Insh Canoeing and Sailing School, by Kincaig	NH 838044	Charity/Company	50	(Countryside Commission for Scotland, 1983a, 1983b; Loch Insh Outdoor Centre, 2018)
Loch Tay Leisure Centre, Kenmore	NN 774448	Charity/Company	63	(Countryside Commission for Scotland, 1983a, 1983b)
Lochearnhead Scout Station, Lochearnhead	NN 587238	Charity/Company	60	(Herts Scouts Mountaineering Section, no date; Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983b; Hertfordshire Scouts, 2018)
Lochearnhead Water Sports Centre	NN 594236	Charity/Company	20	(Countryside Commission for Scotland, 1983a, 1983b; The Courier & Advertiser, 2014)
Middleton Camp School Gorebridge	NT 365582	Charity/Company	270	(Countryside Commission for Scotland, 1983b; Lamb, K. pers.comm.; Ogilvie, 2013)
Montrose House, Balmaha	NS 421908	Charity/Company	36	(Countryside Commission for Scotland, 1983b; Ogilvie, 2013)
Morrone Lodge, Braemar	NO 14947 90360	Local Authority	-	(Committee on Education and the Countryside, 1971; Marr Area Committee, 2000, 2003; Google Maps, 2018c)
Morvich Outdoor Centre, Kintail	NG 968211	Local Authority	30	(Countryside Commission for Scotland, 1983a, 1983b; National Trust for Scotland, 2018b)
National Scout Activity Centre, + Guide Centre Lochgoilhead	NN 198015	Charity/Company	125	(Baird, N. pers. comm.; Countryside Commission for Scotland, 1983a, 1983b; Lochgoilhead National Activity Centre, 2018)
Netherurd House, Blyth Bridge	NT 12171 44928	Charity/Company	-	(Countryside Commission for Scotland, 1983a; Netherurd, 2016)
Newbigging Outdoor Centre	NT 016461	Local Authority	22	(Girlguiding Dundee, no date; Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
North High Corrie Croft	NS 023432	Local Authority	18	(Countryside Commission for Scotland, 1983b)
Pitcairn, Glenrothes	NO 266035	Local Authority	8	(Pitcairn Society, no date; Countryside Commission for Scotland, 1983b; Fife Today, 2012)
Pyatshaw Outdoor Study Centre, Nr Lauder	NT 586483	Local Authority	24	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Dumfries and Galloway Council, 2003; Heritage Hub, 2018)
Radwick Outdoor Centre	ND 201998	Local Authority	8	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Orkney Islands Council, 2018c)

Ru'a Fiola Island Exploration Centre, Cullipool	NM 712103	Charity/Company	24	(Countryside Commission for Scotland, 1983b; Ogilvie, 2013)
Rumster Outdoor Centre, Lyhster	ND 212372	Local Authority	24	(Countryside Commission for Scotland, 1983a, 1983b; Highland Council, 2006)
Scotch Kershope Outdoor Studies Centre, Newcastleton	NY 525852	Local Authority	19	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Dumfries and Galloway Council, 2003)
Scottish Adventure School, Raasay	NG 547365	Charity/Company	34	(Countryside Commission for Scotland, 1983a, 1983b; Raasay House, 2013)
Sir Arthur Grant's Outdoor Centre, Monymusk	NN 684153	Local Authority	24	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Stanemuir Guide Centre	NS 99203 47566	Charity/Company	-	(Countryside Commission for Scotland, 1983a; Girlguiding Edinburgh, 2018)
Stanley Marine Memorial Centre, by Dunkeld	NN 991476	Charity/Company	26	(Countryside Commission for Scotland, 1983a, 1983b)
Stronord Outdoor Centre, Palnure	NX 452643	Local Authority	24	(Countryside Commission for Scotland, 1983a, 1983b)
The Croft Gairloch	NG 76314 77619	Local Authority	16	(Bloomer, K. pers. comm.; Castlemilk High School, no date; Google Maps, 2018)
The Orkney Field and Arts Centre, Birsay	HY 247274	Charity/Company	20	(Countryside Commission for Scotland, 1983a, 1983b; Orkney Islands Council, 2018a)
Tomintoul Outdoor Centre, Tomintoul, Ballindalloch	NJ 168188	Local Authority	36	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Towford Outdoor Studies Centre, by Jedburgh	NT 758133	Local Authority	14	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b; Dumfries and Galloway Council, 2003; Southern Reporter, 2014)
Tweedsmuir Outdoor Education Centre	NT 098244	Local Authority	12	(Countryside Commission for Scotland, 1983a, 1983b; The Boys Brigade, 2010; Urban Saints, 2011)
Valtos Outdoor Activities Centre	NB 086364	Local Authority	44	(Countryside Commission for Scotland, 1983a, 1983b; Stornoway Gazette, 2013)

Voxter Rural Education Centre, Brae	HU 372699	Local Authority	30	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Wanlockhead Outdoor Centre	NS 874129	Local Authority	30	(Countryside Commission for Scotland, 1983b)
Waterside Adventure Centre, by Lesmahagow	NS 787372	Local Authority	24	(Countryside Commission for Scotland, 1983a, 1983b)
Wauchope Field Study and Expedition Centre, Hawick	NT 583084	Local Authority	36	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983b; BBC, 2011a)
Whitecleugh Outdoor Centre, by Crawfordjohn	NS 828207	Local Authority	24	(Committee on Education and the Countryside, 1971; Countryside Commission for Scotland, 1983a, 1983b)
Wiston Lodge YMCA, Biggar	NS 958323	Charity/Company	70	(Countryside Commission for Scotland, 1983a, 1983b; Wiston Lodge, 2017b)

Appendix 3 – Data requests to local authorities

Local Authority	Data Requested	Method by which data was requested
Aberdeen City	Residential OE data 2011/12 and 2016/17	Email
Aberdeenshire	EVOLVE data	Email & phone call
Angus	EVOLVE data	Email
Argyll & Bute	Residential OE data 2011/12 and 2016/17	Email
Clackmannanshire	Residential OE data 2011/12 and 2016/17	Email
Dumfries and Galloway	Residential OE data 2011/12 and 2016/17	Email & phone call
Dundee City	Residential OE data 2011/12 and 2016/17	Email
East Ayrshire	EVOLVE data	Meeting & email
East Dunbartonshire	EVOLVE data	Email & phone call
East Lothian	EVOLVE data	Email & phone call
East Renfrewshire	Residential OE data 2011/12 and 2016/17	Email
Edinburgh	Residential OE data 2011/12 and 2016/17	Email
Eilean Siar (Western Isles)	Residential OE data 2011/12 and 2016/17	Email
Falkirk	Residential OE data 2011/12 and 2016/17	Email
Fife	EVOLVE data	Email & phone call
Glasgow City	Residential OE data 2011/12 and 2016/17	Email
Highland	EVOLVE data	Email
Inverclyde	Residential OE data 2011/12 and 2016/17	Email
Midlothian	EVOLVE data	Email
Moray	EVOLVE data	Email & phone call
North Ayrshire	Residential OE data 2011/12 and 2016/17	Email
North Lanarkshire	Residential OE data 2011/12 and 2016/17	Email
Orkney Islands	Residential OE data 2011/12 and 2016/17	Email
Perth & Kinross	EVOLVE data	Email & phone call
Scottish Borders	Residential OE data 2011/12 and 2016/17	Email
Shetland Isles	Residential OE data 2011/12 and 2016/17	Email
South Ayrshire	Residential OE data 2011/12 and 2016/17	Email
South Lanarkshire	Residential OE data 2011/12 and 2016/17	Email
Stirling	Residential OE data 2011/12 and 2016/17	Email
West Lothian	Residential OE data 2011/12 and 2016/17	Email

Appendix 4 – Additional Data Sources

Name	Local Authority or role	Data Provided	Method of data collection
Alan Smith	East Dunbartonshire	EVOLVE data	Face to face, email & phone call
Ali Dreyer	Fife	EVOLVE data	Face to face, email & phone call
Ben Kellett	Perth & Kinross	EVOLVE data	Email and phone call
Bill Stephen	Midlothian	EVOLVE data	Email
Chris Jex	Orkney Islands	Excel files	Email
Dave Horrocks	Moray, Aberdeenshire	Excel files	Face to face, email & phone
Drhue Forbes	North Lanarkshire	Excel and word files	Email
Gordon Smith	Scottish Borders	Excel files	Email
Graeme Hyett	Inverclyde	Excel files	Email
Helen Gorman	Stirling	Word file	Email
Isi Oakley & Tim Pickering	Eilean Siar (Western Isles)	Excel files	Email
Jane Jackson	Falkirk	Excel and word files	Email
Mary Fox & Louise Hutcheon	Clackmannanshire	Excel files	Email
Mike Tavern	Dumfries and Galloway	Excel files	Face to face, email and phone
Rosamund Rodriguez	East Renfrewshire	Excel files	Email
High Life Highland	Highland	EVOLVE data	Email
Willie White	East Ayrshire	EVOLVE data	Face to face, email and phone
Graham McDonald	Worked at Tertowie and Ballater Outdoor Centres during 1980s	Interview	Interview
Colin Mortlock	Founded the National Association for Outdoor Education, 1969	Interview	Interview
Kier Bloomer	Worked in Strathclyde during council reorganisation, co-writer of Curriculum for Excellence	Interview	Interview
SAPOE	Scottish Advisory Panel for Outdoor Education	Discussion	Presentation and discussions, 07.09.17 and 15.03.18