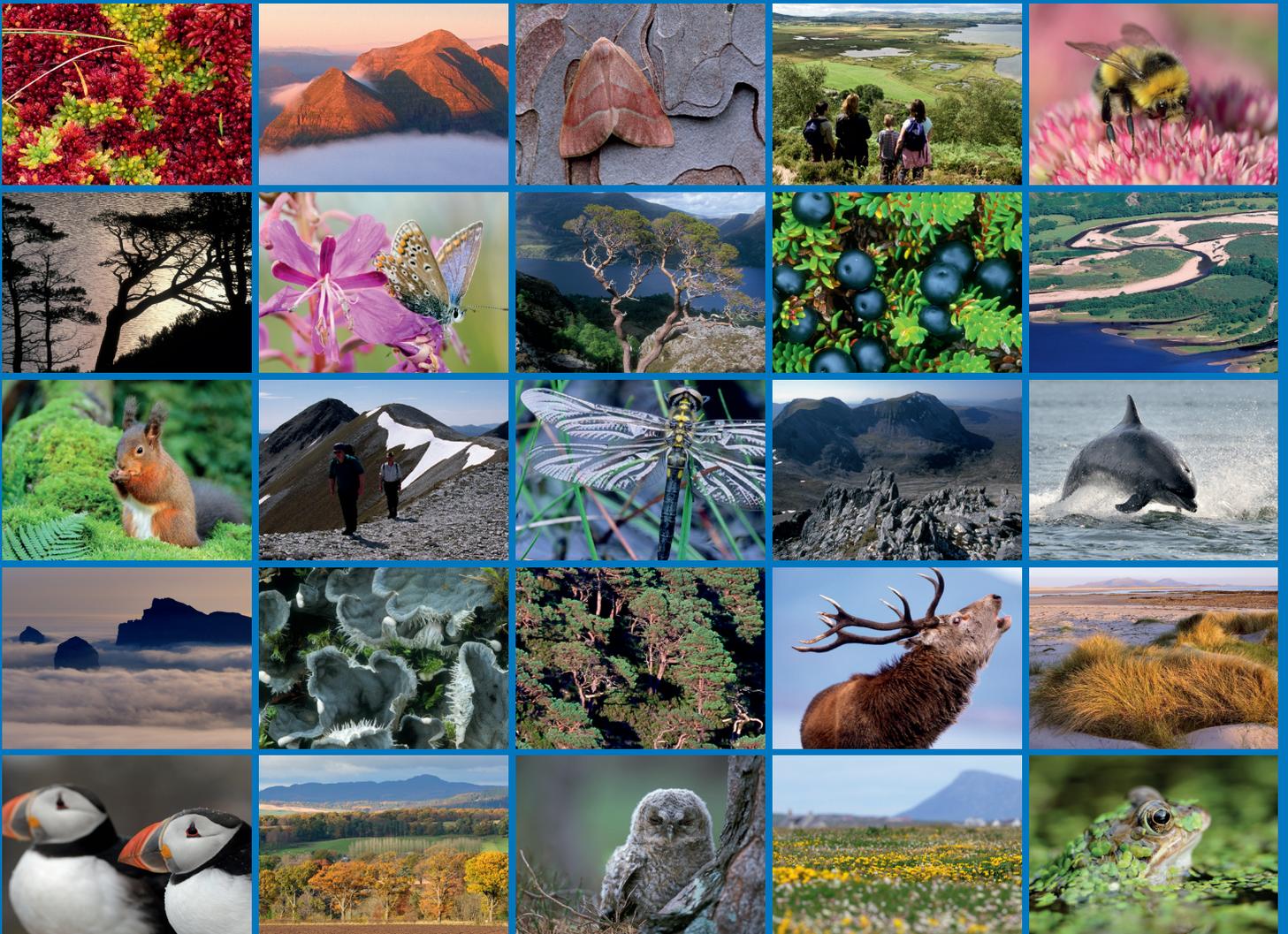


Review of Wester Ross NSA scenic photos pilot project





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RESEARCH REPORT

Research Report No. 1097

Review of Wester Ross NSA scenic photos pilot project

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Carlisle, E. & Campbell, L. 2020. Review of Wester Ross NSA scenic photos pilot project.
Scottish Natural Heritage Research Report No. 1097.

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RESEARCH REPORT

Summary

Review of Wester Ross NSA scenic photos pilot project

Research Report No. 1097

Project No: 115841

Year of publication: 2020

Keywords

National Scenic Areas; citizen science; landscape monitoring; fixed point photography; Wester Ross

Background

This report has been written to review the 'Wester Ross Scenic Photos' project 3 years after it began. The project was set up in the Wester Ross National Scenic Area (NSA) to see if citizen science fixed-point photography could be used to complement formal monitoring of NSAs. It tested a variation of the method used in the Cairngorms National Park "Scenic Post" project. This report also considers a selection of similar projects to explore what makes a successful fixed point photography citizen science project.

Main findings

This report found several useful points to learn from and the key messages are as follows:

- There are varied levels of participation across the projects and Wester Ross had particularly low levels.
- The location of photographic viewpoints, and how they are marked, seems to influence participation levels.
- Having staff 'on the ground' and/or doing direct promotion help increase participation.
- The numbers of participants did not seem to be related to the levels of social media use.
- The rate of landscape change affects how engaging the project is: faster rates or more dramatic changes attract more participation.

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1. INTRODUCTION

The Wester Ross Scenic Photos Project was set up to test if variations to an existing photography landscape monitoring method would make it feasible for use across Scotland's National Scenic Areas. In 2015 the Cairngorms National Park Scenic Post project commenced, using citizen science techniques to complement existing long-term photographic monitoring. The Wester Ross Scenic Photo project was set up to explore whether a more pared-back methodology, without a standalone website or physical markers, could achieve similar outcomes.

At the same time as the Cairngorms Scenic Post Project was commencing, SNH was starting a programme of repeat, fixed-point photography of Scotland's forty National Scenic Areas (NSAs) as part of its landscape monitoring programme. Accordingly, a variation of the Cairngorms project was seen as being potentially complementary to the formal baseline photography programme and an opportunity to investigate ways to engage with interested members of the public and other organisations to help promote awareness of Scotland's National Scenic Areas. Wester Ross National Scenic Area was chosen as a test location, due to convenient access and a diversity of landscapes, to assess the suitability of the approach.

Taking a citizen science approach also fitted with the European Landscape Convention (ELC) and Scottish Natural Heritage's aims for better public engagement with landscape issues. Participation levels have been disappointing, so this project review has been expanded to consider similar projects elsewhere to try to find out why.

1.1 Format of this report

This report evaluates the Wester Ross Scenic Photo project in comparison to three other fixed-point photography projects.

Section 2 outlines the key features of the Wester Ross project;
Section 3 outlines the key features of three other projects: the Cairngorms "Scenic Post" project, the Pembrokeshire Coast National Park "Changing Coasts" project and the Australian project "CoastSnaps".

Section 4 compares the various strengths and weaknesses of the projects.

Section 5 assesses what was learnt.

2. DESCRIPTION OF THE WESTER ROSS SCENIC PHOTOS PROJECT

2.1 Overview of requirements

The intention of the Wester Ross project was to see if an inexpensive citizen-science photography scheme would work, as a comparison to the Cairngorms National Park Scenic Post Project. With the aims of having a simple and low-cost project that avoided the need for physical posts, the following requirements were agreed upon:

- Low set-up and maintenance costs, e.g. no separate web-site;
- No hardware present on site;
- Accessible, safe viewpoint locations;
- Photographers must be able to upload their own photographs;
- Uploaded photographs must be viewable by the public;
- Online map of locations, online instructions and leaflet with local on the ground and online promotion.

From these requirements and after various options were explored, the finalised project consisted of the following:

- Seven Viewpoints (see Annex 1 for map of locations);
- Information posters at three visitor and community centres (see section 4.4);
- A PDF leaflet containing instructions, including existing photographs and map. This was also printed out and displayed at Beinn Eighe NNR (within Wester Ross NSA) (see Annex 3 for a copy of the leaflet);
- A web-page within the SNH website with map hosted on SNH site but run through the ESRI server (now closed, see Annex 5);
- A [participants' survey](#), available via the SNH website (see Annex 4).

2.2 Resources/costs

The project was run entirely in-house using the expertise of SNH's own GIS, web and design teams as well as landscape staff. This meant that the project budget was staff hours only. Staff time was higher than a project using an external contractor but the financial cost was significantly lower and it also meant that maintenance was done in-house. Between 2015 and 2107 staff time was as follows:

Wester Ross Scenic Photos - team	Staff Time 2015-2017 - days
Landscape	39
GIG	11
Area	5
Design	5
Communications	1

This added up to 61 days in this period with the bulk of this in the 2016/2017 year. In 2017/2018 the project was mainly run by the landscape project officer.

2.3 Photography and viewpoints

Planning for these key aspects included selecting the location of viewpoints, the method of taking the pictures and the accompanying instructions. When choosing locations to take the photographs from there were a number of factors to consider: The locations needed to show

places or qualities mentioned in the Special Qualities of National Scenic Areas¹; They had to be safe, and in an easily accessible location near recognised car parking; and it also had to be easy to describe the location. Where possible, places where change was likely to happen (e.g. woodland, to show growth or felling) were considered as well. Using these criteria, seven locations were chosen. See Annex 1 for a map showing the location of these.

It is a common feature of citizen science photography projects that the photographs do not require special equipment or “zooming in”. This project followed that convention.

It was decided to use leaflets providing a reference photograph and description of the location as well as instructions on how to take and upload the picture. These were available for downloading from the project webpage as pdfs (see Annex 3). It was understood from the outset that this approach had significant flaws as it requires forward planning by the participant and place-based promotion. Importantly, however, it does not require strong mobile phone signal in situ so this was considered the best option due to the weak signal around many of the viewpoints, and the area in general.

2.4 Options for online interface

A key requirement of the project was user-friendly online delivery, recognising that even small barriers to participation can have a negative impact on people’s engagement with the project. The options for this were as follows:

- Standalone bespoke website. The set-up and hosting costs excluded this from further consideration. Using a different system also allowed more of a comparison with the Cairngorm Scenic Post method that used a bespoke website.
- Custom-built mobile phone application. There are good examples of this working and it could allow for notification of sites when in the field. This was discounted due to poor mobile phone signal coverage within the study area.
- Social Media:
 - The benefits of a social media approach included the ease of uploading, the low set-up and maintenance costs, ease of promotion and communication through social media.
 - Disadvantages included the need for mapping facilities on the SNH website. This meant that users would have to navigate between sites. There was also a requirement for suitable storage for photographs, and there could be potential alienation of non-social media users. Along with these considerations, SNH was moving away from using social media for individual projects. Hosting the project (at least in part) in the main SNH website. This was preferred as it would allow better internal awareness and connectivity with other parts of our work.
- Use of pages within the main SNH web site option. For this, the Story Mapping application was the delivery approach explored initially. This is an ESRI project based on their ARCGIS mapping system, the mapping and spatial analytics programme used by SNH.
 - The benefits were use of a system already explored for other projects within the organisation and the simplicity of using an existing template.
 - The negatives were that a standard Story Map Template was not designed to deal with an increasing number of photographs uploaded by from multiple users. A new Crowd Source Story Map template in Beta mode allowed uploads by the public and, accordingly, going into the development phase, this was the preferred approach.

¹ [The Special Qualities of the National Scenic Areas](#) are defined as “the characteristics that, individually or combined, give rise to an area’s outstanding scenery”. The qualities reflect the reason for designating the NSAs and create a baseline for celebrating and safeguarding these areas.

- During development, constraints with the template became problematic, especially not being able to set prescribed locations. Accordingly, the decision was made to use the ArcGIS maps to produce a standalone map, hosted on the corporate website but using the ESRI storage system.
 - Since the start of the project, technical support for the crowd-sourcing template has been removed by ESRI. This means that although the template is still available it will not be updated or maintained making it a risky option to return to.
5. This is a constantly evolving area of work. There have already been developments in applications and connectivity, and there will be more emerging in the future, that would have changed the reasoning behind choosing this methodology.

2.5 Communication and promotion

Promotion, locally and using social media, was the main way to inform the public about the project, given the absence of physical posts. Keeping in mind that consistent communication is a key part of successful engagement, the following were undertaken:

- Posters and leaflets were positioned at visitor and community centres within the area, to make people aware of the project.
- SNH's Twitter, Facebook and Blogposts were all used to promote the project with support from SNH's communication team.
- Information and instructions were downloadable from the relevant SNH website page (where any problems could also be reported).
- Feedback was encouraged through a participant survey built using Survey Monkey to gain reflections on the project.

2.6 Participation

The Wester Ross project had 14 photographs submitted, compared to 600 in the Cairngorms project. The very low number of participants Wester Ross, but also the numbers in the Cairngorms, prompted us to find out about levels of participation in other, similar projects for comparison.

3. DESCRIPTIONS OF OTHER PROJECTS

Three other projects were reviewed, during the development of this project and again during its evaluation. These are outlined below. The Cairngorms project, an obvious comparison with Wester Ross which was an 'offshoot' of the Cairngorms work; and two coastal examples – one in Wales and one in New South Wales – which took very different approaches to photograph submission and promotion.

3.1 Cairngorms Scenic Posts Project

The Cairngorms Scenic Post project was launched in 2015 and was run by Cairngorms National Park Authority with additional funding from the then Forestry Commission Scotland and SNH. The locations were chosen for their scenic value, likelihood of change and diversity, with a geographical spread across the national park. The key features of this project were that it used a custom built website (see <https://cairngorms.co.uk/photo-posts/>) and installed fixed posts at photo locations. The project included the following features:

Photographs and viewpoints

1. Fifteen wooden posts, with metal brackets on top for positioning cameras (see photo below), were installed at each viewpoint location. An additional nine posts were installed in 2017.

Online delivery

2. Custom built website to which users upload the photographs to a map.
3. Participants are required to register to log-in to upload photos. They could then opt to receive updates on the project. In the first 3 years 600 photographs were uploaded.

Promotion

4. Promotion was done in a range of ways: In person at National Park events; using postcards showing landscape change to engage potential volunteers; the project also featured on the Landward programme (BBC Scotland).
5. Social media use was limited. Blogs and a number of tweets were used during the launch months but very little after that period.

Costs

6. The overall cost of the project in the first year was £27,644.



Figure 1. Cairngorms Scenic Post bracket and post, from project website.

3.2 Pembrokeshire Changing Coast Posts Project

Pembrokeshire Coast National Park set up the Changing Coast Project to record coastal change, using the Cairngorm Scenic Posts project and CoastSnaps projects in Australia as inspiration, after storms in 2014 caused significant damage to the coastline. The key features of the project were the use of an email for photograph submission, no automated upload system and fixed brackets for photographing locations (<http://www.pembrokeshirecoast.wales/default.asp?PID=756>). The project included the following features:

Photographs and viewpoints

1. The first bracket was installed in 2015 at Aberreiddi after the sea wall was destroyed by bad weather.
2. Fourteen posts used, mainly brackets attached to existing fence posts and information boards, but some hardwood posts were installed where there was no existing furniture. Some posts have already had to be moved due to coastal erosion.
3. The posts are all located along the Pembrokeshire Coastal Path, a long distance route along the coastline.

Online delivery

4. The project uses a project email address for submission to remove barriers to participation but this means all data collected has to be sorted and saved manually.
5. No data has been collected about participants, but any anecdotes submitted with photos are collected in a spreadsheet. Changing Coasts Project had over 1100 photographs submitted but there are no records indicating how many were from repeat participants.
6. Photos are used to create time-lapse “films” – series of images - which are displayed on the website. There is no gallery of photographs.

Promotion

7. Promotion has been mainly focussed on posters in car parks and other information points, as well as the National Park’s website. Social media has not been used in this project

Costs

8. The overall cost of the project was £860 in the first year plus staff time.



Changing Coasts photography post at Aberreiddi from project web page

3.3 CoastSnaps Community Beach Monitoring

The CoastSnap project was set up by the New South Wales state government to monitor beach erosion and deposition, <http://www.environment.nsw.gov.au/research-and-publications/your-research/citizen-science/digital-projects/coastsnap>. The project uses posts and brackets but the key feature of this project for consideration was the use of social media to host the project, upload the pictures and promote it.

The project included the following features:

Photographs and viewpoints

1. This project started with viewpoints on two of Sydney's beaches and a more recent one in Byron Bay. The project now has versions of it at over 10 locations across the world.
2. The Project uses a physical bracket attached to an information plaque about the project.

Online delivery

3. Project locations have different Facebook pages but different beaches within a location, for example Sydney, share a page. The pages are also used to promote the project, using annotated photographs showing change, and alerting followers to weather or tidal events which may produce rapid change. This tallies with an upturn in photographs uploaded
4. Users upload photos to the project's Facebook page using a hashtag to identify the location. Social media was therefore a key part of this project.
5. All uploaded pictures are visible on the Facebook page; they are used to produce time-lapse "films" or series, and annotated photos showing change. There is no data on the number of photographs collected but it appears to be over 100 for each location.
6. An email alternative is provided, as a site where non-Facebook users can upload photos.

Promotion

7. Social media is a key part of this project, via its Facebook pages.
8. The project has expanded to a number of other places in Australia and globally.

Costs

9. Information unavailable.



CoastSnap Profile picture from Facebook profile page

4. COMPARISON OF PROJECTS

These four projects had many similarities in intention, but varied levels of engagement. This section compares them under the same three headings used throughout the report: photography, uploading and promotion.

4.1 Photography and viewpoints

Numbers of photographs submitted: the Changing Coasts Project had over 1100 photographs submitted; Cairngorms just over 600; CoastSnaps numbers are hard to monitor due to multiple Facebook pages but would seem to be within the 100's; Wester Ross Scenic Photo Project had 14 photographs submitted.

The Cairngorms, CoastSnaps and Changing Coasts projects all use physical posts with camera brackets to indicate where to take photographs from, and in which direction. Although their participant numbers are widely different they are all significantly higher than the Wester Ross project. This suggests that the physical presence of a marker and a guide for taking the picture is important. Physical posts not only direct the process of taking the photographs but also to help raise awareness of the project.

For the Wester Ross project, there are no physical markers to guide the direction for the photograph. Perhaps related to this, at Slattadale car park the submitted photographs taken were of the 'view' - the most instinctive direction to take a picture – but this was not what was shown in the reference photograph. A physical post and bracket would have avoided this problem. Other Wester Ross viewpoints had a closer overlap between the reference photograph and instinctive views.

4.1.1 Photography and viewpoints overview

- Physical marker posts help ensure the submitted photographs show the desired view.
- Participation numbers are higher where physical marker posts are used.
- The other projects found an upturn in photographs after or during rapid change, whether storm-related erosion in the coastal projects or flooding in the Cairngorms. CoastSnaps capitalises on this by increasing social media promotion before high tides or storms and again afterwards to show the effects.
- All projects found more photographs were taken in the summer months when visitor numbers are higher.

4.2 Online/website/uploading

The Cairngorm project used a bespoke website which included a map, a gallery of photographs for each location and a sign-in page. This was the most expensive approach in terms of website set up but there were still some problems with this process. These included troubleshooting glitches after the launch, and a lack of connection between the main park site and the project site. In addition, the site required participants to sign-up, which is good for collecting data and moderation but which may deter participants who want to upload quickly and with no commitment.

Pembrokeshire's Changing Coast project used the least resources in setting up their project, but more are needed in running it. The project runs using an email address and there is no other way to upload pictures. The email approach makes the project accessible to everyone who has an email address. It does not require participants to sign up. Although this process is simple for participants, it is time consuming for the staff to process the photographs. This has led to a lag between submission of photographs and them being made available to the public. With no gallery function available, the project uses embedded time-lapse "films" made from the photographs. These are hosted on YouTube.

CoastSnaps uses Facebook to host their project with participants uploading directly to the page or using the project email to submit photos. The project team communicate through these pages and also produce annotated pictures or time-lapse “films” showing recent changes which are uploaded to the pages.

Wester Ross Scenic Photos uses a bespoke map hosted on an SNH webpage to which the photographs are uploaded with no sign-in required. The process of uploading photos to the map proved straightforward. However, there are continuing issues with viewing the uploaded photographs through the SNH website: the number of photos visible is variable and can change with screen refresh. It would seem to be a communication issue with the online server (ArcGIS). This issue is quite serious as it looks as if the photos have not been uploaded, and this has a negative effect on the user’s experience. When the map is accessed by staff through ArcGIS for moderation, photographs are uploaded and stored correctly. SNH GIS staff reviewed this mapping issue and concluded that there is very little chance to properly integrate ArcGIS online maps/apps into regular webpages without having an application that is specifically designed and built.

4.2.1 Online/website/uploading overview

- All of the projects reviewed included a project email address, except for the Wester Ross project. This broadens the accessibility of the projects by providing an alternative way to submit photographs.
- Removing the requirement for log-in or membership may increase ease of participation but increases the need for moderation.
- Immediate viewing of uploaded photographs can increase engagement with participants.
- An automated upload system reduces staff work load considerably. The Cairngorms, Wester Ross and CoastSnaps projects have these in place.
- The technical difficulties experienced by the Wester Ross project are severe hurdles to its effectiveness. The likely costs of resolving this (producing a specific app) are too high, and would not be in keeping with the original intention to avoid a separate web-site or app.

4.3 Promoting the projects

Cairngorms Scenic Photos: has physical markers (posts and camera brackets) on site. During the launch months, promotion was undertaken at a number of events across the park using postcards, posters and staff talking to visitors about the project. This led to a significant upturn in contributions and website visits in the weeks after the events. The year after the launch it was found that promotional materials at similar events, but without staff members, did not provide the same upturn in participation.

Pembrokeshire Changing Coasts: has physical markers (mostly camera brackets on existing fence posts). Promotion included posters on information boards (mostly in carparks and areas of high footfall) and staff having informal chats with visitors when they were out checking the posts. This project used no social media promotion.

The Australian CoastSnaps project: has social media promotion, physical markers (information plaques attached to the physical posts), dedicated social media identity, an alternative email address for those who do not use social media and it is very active in promotion. The views and likes of the page are high but contributions are lower than Pembrokeshire Changing Coast. It provides a fascinating tool for encouraging discussion about coastal change and promotes engagement online even if not through contributing photographs. Its model has been replicated by other organisations.

Wester Ross project: posters and leaflets were displayed at three locations within the project area: at Gairloch and Loch Ewe (GALE) visitor and community centre in Gairloch; Beinn Eige National Nature Reserve (NNR) Visitor Centre; and the National Trust for Scotland Countryside Centre in Torridon. These are all close to photograph locations, are destinations for visitors in themselves, and there is WiFi at the GALE centre and Torridon countryside centre. This enables participants to download project information and photography instructions.

Wester Ross Scenic Photos: Social media. There have been 5 blogs and 9 tweets through SNH channels. Use of social media has not been regular and there is no feedback on responses, retweets or shares as indicators of engagement. The project was visited and mentioned in a blog by SNH's CEO. This led to the project being mentioned by Three Lochs local radio station and feedback from the reporter, praising the project and inquiring about future expansion of the project. However there were no additional uploads resulting from this.

There were unexpected issues with the Wester Ross project, for example a blog published in the same week as the website migrated to a new platform, thus temporarily preventing uploading of photographs. SNH's web address changed during the project, and it was likely there were old versions of promotional materials in circulation which may have resulted in some photographs being "lost".

4.3.1 Promoting the projects overview

- The Wester Ross Scenic Photo project has a higher social media presence than Pembrokeshire Coastal Change and Cairngorms Scenic Posts projects, but significantly lower numbers of participants.
- Physical markers seem to be helpful in generating participation. Social media promotion alone is less effective.
- Staff presence on the ground, or at events, can help increase participation.

5. REVIEW FINDINGS

This report found several useful points to learn from. They are outlined in this section, grouped into three broad themes of: participation levels; engagement and awareness (with several sub-sections); and motivation and the key messages are as follows:

- There are very varied levels of participation across the projects.
- Siting of viewpoints and how their locations are marked is important.
- People 'on the ground' or doing direct promotion help increase participation.
- The numbers of participants were not related to the levels of social media use.
- Rate of landscape change affects how engaging the project is.

Wester Ross's lack of robust digital kit (web-site / app), on top of the lack of physical markers and lack of 'people on the ground' promoting the project, all combined to result in a very small number of participants. Coupled with the slow rate of landscape change it meant that there few incentives to engage with the project. Although this pilot project did not show a positive result for the method used, the experience gleaned from it is very useful.

The following paragraphs explore the findings in more detail.

5.1 Participation levels

Both Cairngorms National Park and Pembrokeshire Coast National Park have higher visitor numbers and a greater on-the-ground presence than Wester Ross NSA, so a higher engagement would be expected in the national parks. However, the difference between Cairngorms and Pembrokeshire participation is much more marked than can be explained by the difference in visitor numbers.

Cairngorms have found very varied levels of participation at different locations and this is to be a focus for their next evaluation, as the pattern cannot be explained by remoteness alone. Some of the remote locations with lower rates of participation were most highly viewed online, and one of the least used posts, River Walk in Aviemore, was one of the most accessible. There are a number of engaged repeat participants who post photographs from a limited number of favoured posts. The highest participation in a short timeframe was during flooding, as the viewpoint bracket overlooked the affected area.

Changing Coasts has the highest numbers of photos, albeit in an area with highest visitor numbers. It has also concentrated all its physical posts on the popular Pembrokeshire Coastal Path. Stopping on a well-used footpath to take pictures at marked locations is an easier and more impromptu activity to do, in contrast to the Wester Ross approach where more advance planning, including finding the precise locations, is needed.

The contributor numbers for the CoastSnap project are not known. However the posts are on viewpoints or paths above urban beaches. These are well used by visitors and residents, this might suggest the potential for higher engagement levels than observed on the projects page. Engaged repeat photographers are noticeable on the site. There is an increase in submissions after weather events impacting on the coastline.

From the review of all the projects it can be summarised that locations for photographs need to be clearly marked and accessible. Well used footpaths and existing viewpoints seem to be more engaging than places with more visual clutter such as car parks and points that require searching for are generally unsuccessful. Hardware on the ground, although expensive, would seem to be essential to the project success, unless the project is being carried out by a small team of longer term volunteers.

5.2 Engagement and awareness

Initial engagement needs good promotion of the project and a “hook” for initial participation. Working with partners and staff on the ground helps. All projects had higher interest levels following this type of approach. SNH’s manager of Beinn Eighe NNR, in Wester Ross, was keen to extend the project to their reserve paths. This would fit with the existing fixed-point photography work done on the reserve; increase the regularity of photography at this location; and be a good place to promote the project more strongly.

Cairngorms and CoastSnaps all had more online viewing, and, in the case of CoastSnaps, comments and sharing. This is more passive engagement but still raises awareness. Wester Ross had more social media posts but fewer participants.

This would suggest that online engagement is less important than initially thought. It is an area both Changing Coasts and Cairngorms Scenic Posts are aiming to develop as it does not require other agencies or additional costs to disseminate information. CoastSnaps proves it can be used, but high engagement levels from staff seem to be a key requirement. The evaluation suggests that robust “kit” (physical and online) is needed for good levels of participation.

A different method again has been used in the monitoring of coastal archaeological change by volunteers. Scotland’s Coastal Heritage at Risk Project (SCHARP) had a new website, and app (an interactive recording tool) and two full-time staff members who trained teams of volunteers in survey work. The budget was above £250,000. Over a thousand participants have been involved.

5.2.1 Motivation

One of the interesting findings of this review is that motivation is an important factor for these types of projects. There are key areas where motivation needs to be examined. These, noted in Geohegan *et al* are: awareness of opportunity; decision to participate; initial participation and sustained participation. Currently there are barriers to participation in all of these in the Wester Ross project.

5.2.2 Ownership and copyright

The example of the BBC programme ‘Scotland’s Landscapes’ is one where ownership of the photographs and lack of clarity on usage was felt to deter participants. Clear explanations as to what the photos would be used for and their value would help to overcome this. When developing Placebook Scotland, an online photograph sharing community project that ran for four years celebrating the landscapes of Scotland, legal advice was sought to ensure SNH could use the photographs in a non-commercial way. This advice was revisited at the inception of the Wester Ross project. Ensuring that data collection clearly follows the required legislation is essential but, demonstrating how it will be gathered, stored and utilised will build trust between participants and the project.

5.2.3 Promotion ‘on the ground’

Cairngorms found engagement with staff motivated participants better than promotional materials alone. Examples elsewhere have found that support, e.g. guided walking groups taking the pictures, is needed to sustain levels of participation.

Changing Coasts has staff on the ground carrying out maintenance and in the office responding personally to emails who promote the project informally as they work. This would suggest it is easier to manage locally or with local partners. Local engagement with the project would seem to help, whether communities of place or communities of interest. One-off

participation, for example by visitors to the area, can be used effectively if awareness, motivation and initial engagement can be sparked at the locations. In contrast, for Wester Ross, awareness of the project is low locally and the lack of physical reminders means that any initial intention to participate is not reinforced at the viewpoint location.

5.2.4 Social media promotion

In all but the CoastSnap project, on the ground human interaction would seem to be more important than social media. Social media engagement, although seeming to be less important to participation overall, would also seem more successful when interactive rather than blog posts and more impersonal promotion. This was the case in the CoastSnap project where the project officers were visible on the Facebook pages and answering questions, commenting on photographs and updating weather and tidal changes. Human interaction would seem important throughout engagement, encouraging both initial awareness of the opportunity and sustained participation.

5.2.5 Before-and-after images

The use of old or 'before and after' photographs or paintings can provide a starting point to entice people to the project: i.e. showing "past – now – future", not just "now – future". The old images provide a 'hook', especially with personal or historic context. An English Heritage project at Stonehenge 'Your Stonehenge'² used this personal history aspect to challenge visitors to recreate their own family photos at the monument, tapping into a sense of connection and the current "selfie" culture. This is less a citizen science exercise but has engaged participants none the less.

However, there are several examples of where even this format did not work for long. These included even high profile instances such as the BBC's and Colin Prior's television series of four programmes – Scotland's Landscapes³, shown in 2010 – where public engagement with taking before-and-after photographs was not high.

5.2.6 Landscape change

Demonstrating change through the photographs seems to be an important draw. CoastSnaps, Cairngorms and Changing Coasts all found upturns in participation around landscape changes, permanent or temporary, such as notable coastal erosion or flooding. Looking at the photographs at the Torridon viewpoint indicates that erosion has increased around the car parking and key views. These are more minor levels of change than the coastal erosion in Pembrokeshire.

² <https://www.english-heritage.org.uk/visit/places/stonehenge/things-to-do/YourStonehenge/>

³ <https://www.bbc.co.uk/scotland/landscapes/>

6. CONCLUSIONS

The Wester Ross Scenic Photo project had very low levels of participation. Having reviewed the project, and compared it to similar studies, we have identified several reasons for this. The more successful projects all had physical markers to indicate photo point locations, and robust photo upload mechanisms. They also had a higher resource requirement/input in terms of either financial outlay (the Cairngorms National Park Authority's separate web page for information and uploading photos); or the presence of project staff on the ground (Pembrokeshire Coast Changing Posts project). Use of these resources was more effective than social media.

We have learned several useful aspects about public engagement in fixed point photography. Whilst we won't continue with the Wester Ross project, we have compiled some actions that SNH could implement - for example on some National Nature Reserves' guided walks. We hope that at least some of these will be used, as we have also learned that fixed-point repeat photography is something in which many people are interested and it can be a way of engaging the public in landscape matters.

7. REFERENCES

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ANNEX 1: MAP OF WESTER ROSS NSA SCENIC PHOTOS VIEWPOINT LOCATIONS



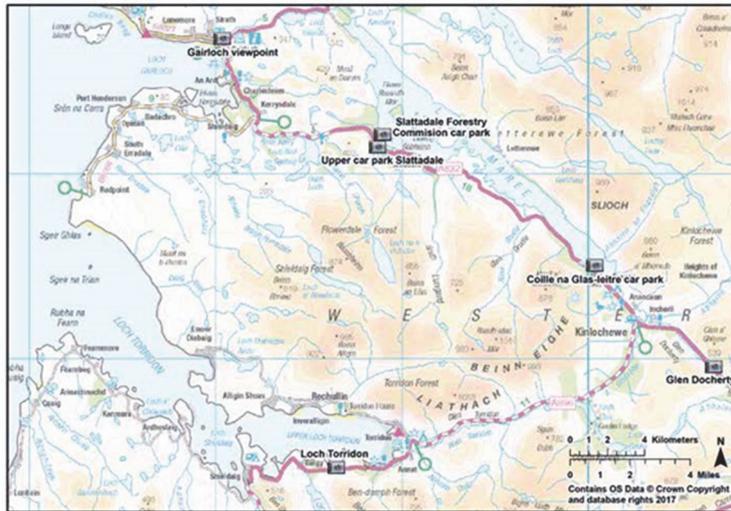
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ANNEX 2: ACKNOWLEDGEMENTS TO CONTRIBUTORS TO THE EVALUATION

Several contributors greatly helped with the review of the project, and enabled us to learn about the varied issues that affected public engagement with fixed point photography. We are grateful to them all

- SNH Gabor Barton (GIS team)
- Douglas Bartholomew (Beinn Eighe NNR Manager)
- Paula Betts (user feedback)
- Pete Moore (Area officer, for PhD thesis on photography)
- Communication team (press feedback)
- Pembrokeshire's Changing Coasts Project – Project Officer Rebecca Evans
- Cairngorms Scenic Post Project – Graham Saunders, Hayley Wiswell

ANNEX 3: WESTER ROSS SCENIC PHOTO PROJECT LEAFLET



This map shows the location of the six Scenic Photo sites. The detailed location and instructions for each viewpoint are on our web page:

www.nature.scot/ScenicPhoto/WesterRoss



Everyone who looks around Wester Ross National Scenic Area can see its scenic splendour and variety of dramatic and distinctive landscapes.

Wester Ross contains some of the most iconic mountains on the west coast such as An Teallach, Slioch and Beinn Eithe. Lochs and the western seaboard add to the variety, and the area also contains coastal villages like Torridon and Gairloch.

Although it looks timeless, much of this landscape has evolved through the centuries and it continues to change.

The Wester Ross Scenic Photo Project is an exciting photography project that aims to narrate this change. Through analysing repeat photographs from selected points around Wester Ross we can monitor changes in the landscape and also record the area for future generations.

If you're travelling through Wester Ross, you can help us develop a more continuous story charting this change by sharing your photographs from particular places.

How can I help?

By taking, and then uploading, photographs from one or more of the six project viewpoints across the Wester Ross National Scenic Area.

How would I do this?

The most important thing is to recreate the original photo as closely as possible.

To do this, choose a viewpoint to visit (see map overlap and/or the website). Once there, use the instructions, description and example photo, to recreate the image by pointing the camera in the right direction and just clicking. You do not need to zoom in or change your settings.

When you have taken the photo, upload it to the project webpage, by clicking on the right map location and adding the time of day, and date. By doing this you will have made a valuable contribution to our monitoring project.



Do you want an excuse to visit and photograph some of Wester Ross' most scenic places?

Wester Ross Scenic Photo Project

We need you to help us monitor how our landscape is changing, day by day, season by season and over the years.

Just by taking photos!



Is there anything else I need to be aware of?

Please remember that these locations are all public parking areas so there may be vehicles moving around while you're there. You will need to be outside to take the photograph so be prepared for the weather and ground conditions and other outdoor hazards.

There are six project photo viewpoints across Wester Ross National Scenic Area: photographs from one or all of them will be valuable. Their locations are mapped overleaf and on our web page www.nature.scot/ScenicPhoto/WesterRoss

No photography know-how is needed and you can use any camera, from phone to a digital SLR.

What will happen with the photos?

Over the next few years the photos collected will be used to produce a picture of how the landscape is changing. The longer the project continues the more useful it will be. You will be able to see all the uploaded photographs along with news on the project on our web page.



ANNEX 4: PARTICIPANTS' SURVEY

1. How did you first find out about the Wester Ross Scenic Photo project? Please check all that apply.

- Scottish Natural Heritage website
- Social media
- Feature or advert in local press
- I saw a poster
- Through a friend or relative

Other (please specify)

2. Have you ever previously participated in a Citizen Science project, i.e. a project where members of the public volunteer their time to collect data or other information about the natural environment?

- Yes
- No
- Not sure

3. What reasons best describe why you decided to take part in the Wester Ross Scenic Photo project? Please check all that apply.

- The opportunity to try something new
- Just enjoy being outdoors
- It sounded like an interesting project
- I live locally and know the photo locations
- I am interested in photography
- I want to help look after the Wester Ross landscape
- Something enjoyable to do while visiting Wester Ross
- It provides a good reason for a walk or an outing in Wester Ross

Any other reasons (please specify)

4. How helpful is the information provided on the website in terms of:

	Very helpful	Quite helpful	Not very helpful	Not very helpful at all	Don't know/Not sure
Explaining why the project is being undertaken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explaining how the photo records will be used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Explaining how the photo records will be used Don't know/Not sure
Explaining what skills and equipment people need	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Explaining what skills and equipment people need Don't know/Not sure
Explaining exactly what participants are required to do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Explaining exactly what

If you have any other thoughts about the information provided on the website, please provide details below

5. Thinking about the instructions provided on the website, how easy was it:

	Very Easy	Easy	Not very easy	Not at all easy	Not sure
To find the Scenic Photo locations	<input type="checkbox"/>				
To upload your photos	<input type="checkbox"/>				

If you have any other thoughts about the photo locations or photo upload instructions provided on the website, please provided details below.

Finally, we would be grateful if you could provide a little information about yourself to help us understand who is participating in this project

6. Firstly what do you identify your gender as?

Male

Female

7. What is your age?

8. Where do you live?

If outside of the UK please could you tell us which country

9. How often, on average, do you take visits to the outdoors for leisure and recreation?

10. On your last trip to a Scenic Photo location, were you (please check all that apply):

- On your own
- With other members of your own family
- With children under 16
- With friends
- With an organised group
- Other (please provide details)

Thank you very much for your help with the Wester Ross Scenic Photo Project

If you are interested in hearing about how the project progresses and would be able to help us further in the evaluation process, please could you add your email below. We will not use it for any other purpose as that is just impolite! Otherwise, keep an eye out for seasonal updates through the Scottish Natural Heritage blog

ANNEX 5: SCREENSHOT OF WESTER ROSS SCENIC PHOTO WEBPAGES

Wester Ross is a National Scenic Area with spectacular landscapes. Coasts, lochs, crofts and mountains – they all help to build the identity of a very special landscape that tells the story of the processes and people in its history.

Repeat photographs taken at six viewpoints across Wester Ross National Scenic Area (NSA) will build a visual timeline of the changing landscape. All viewpoints are next to a car park or layby and their vistas reveal some of the special qualities that make Wester Ross so exceptional.

You don't have to be an expert photographer to take part in this citizen science project, and any camera will do – from digital SLR to mobile phone.

Just pick one or more viewpoints and start snapping. The most important thing is to recreate as closely as possible the example photo for your chosen viewpoint.

Find out more and view the example photos in [Wester Ross Scenic Photo Project: How to find the locations and take the photos](#).

Be sure to download the instructions before you set off – many of the viewpoint areas have poor mobile reception.

Share your images

You should upload your images to our Scenic Photo map below. To begin, click on the viewpoint location on the map or select where the photo was taken using the drop-down menu.

Upload your photos

Click the location in the map or select where the photo was taken

[Download GPX](#)



Gallery of uploaded photos

Gallery of uploaded photos

Image timestamp: 20/09/2016 19:29:19 - Name: One of my holiday snaps, conveniently in the right place! - Weather: Dry but cloudy - Comment: Taken with my phone so not best quality.



Give us your feedback

Wester Ross Scenic Photo Project is a pilot, so your feedback can really help us to develop the project further. Tell us what you thought of taking part by completing our [Wester Ross Scenic Photos feedback survey](#). You can also highlight any problems that you came across – either on the ground or online.

Project background

Our project is linked to the [Cairngorms Scenic Photo Posts](#) project, run by the Cairngorms National Park to explore ways to record landscape change.

Find out more

[Wester Ross Scenic Photo Leaflet](#)

[Wester Ross Scenic Photo poster](#)

[National Scenic Areas: scenic Photo Project – Terms and Conditions](#)

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© Scottish Natural Heritage 2020
ISBN: 978-1-78391-592-7

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You can download a copy of this publication from the SNH website.



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