WOW – Window on Wildlife: Sir Peter Scott Observatory
Project reference number – DGN271
Final Report

January 2014
Background to the project

1. How was the idea for the project developed?

WWT Caerlaverock is one of nine UK centres managed by WWT, the UK’s leading wetland conservation organisation. Situated on the North Solway, Caerlaverock covers an area of over 560 hectares. It is Nationally and Internationally Important for wintering wildfowl (especially whooper swans and barnacle geese) and waders and a base for ground-breaking ornithological research, attracting ca 18,000 visits annually.

We developed the project to replace the old Peter Scott Observatory – an important hide and visitor-engagement hub which had simply come to the end of its natural lifespan. Following a review of the Observatory’s structure and visitor engagement/formal learning capacity, it had become apparent that the current building was no longer fit for purpose:

- Built as a ‘temporary’ structure in 1970, it had outlived its intended lifespan by many years and was in a poor state of repair. It leaked, had minimal heating and no insulation, providing a dark and rather depressing experience for visitors.
- Although it had spectacular views, it struggled to cope with visitor numbers during peak times – during swan feeds, for example, the people at the back simply couldn’t see.
- In addition, the viewing tower was poorly served by an inadequate staircase and had no wheelchair access.

The WOW project has successfully resolved these issues by creating an extraordinary new building, as described below. This immersive wildlife-watching experience benefits Caerlaverock’s local community and visitors of all ages and abilities.

The old Observatory is demolished in April 2013
2. **Who was involved in the project? Individuals and Organisations.**

**The WWT team**
Initially, the project was managed by **Dave Fairlamb** (Caerlaverock Centre Manager) and **Kevin Peberdy** (WWT Director of Centre Developments), who jointly oversaw delivery of the project by contractors and WWT staff. In July, when Dave left Caerlaverock to manage WWT’s Arundel Wetland Centre, Learning Manager **Brian Morrell**, with many years of experience at Caerlaverock, was promoted to become the new Centre Manager.

Reserve Manager **Richard Hesketh** also liaised closely with the contractors and worked with teams of wardens and volunteers to landscape the area surrounding the new building and dig out/plant the entrance wetland.

During the later stages of the project, **Amanda Bradbury** (Programme Manager – Interpretation) developed a range of interpretation materials and led the final fit-out of the building.

**Other members of the project team**
The architect for the build was **Architects Plus**, based in Carlisle.

As described below, local Dumfries company **Ashleigh (Scotland) Ltd** was appointed as contractor following a rigorous tendering process. Ashleigh, the second cheapest of eight tender returns, was chosen for its track record on similar construction techniques in difficult ground conditions. In negotiation with both lowest tenderers for “value engineering”, Ashleigh forwarded a comprehensive breakdown of potential savings and enabled the project to proceed on budget.

**Wider partnerships**
As a key wildlife visitor destination within Scotland, Caerlaverock is integral to the network of wildlife conservation, environmental education and wildlife tourism sites in Dumfries & Galloway.

We therefore worked with the following partners in developing the WOW project:

- We liaised with **Scottish Natural Heritage** to ensure that the project messages link well with Caerlaverock NNR and wider Solway issues.
- We worked closely with our landlord, the **Caerlaverock Estate**, to ensure that the project met with their approval.
- We promoted the project by working with **Wild Seasons**, a Dumfries & Galloway nature-based tourism promotion initiative with links to the RSPB, National Trust for Scotland, Forestry Commission Scotland, Scottish Natural Heritage, Dumfries & Galloway Council, Southern Uplands Partnership, Cream o’Galloway, Destination Dumfries & Galloway and The Langholm Initiative. Wild Seasons has already held two training events in the new Sir Peter Scott Observatory – fact-finding trips for local accommodation providers to give them more information on what their guests can see and do here.
- We are also working in partnership with other local tourist attractions/ accommodation providers, particularly Gretna Green Blacksmiths and
Aston Hotel, to promote each other's businesses through marketing and discounted ticketing.

3. What were the aims and objectives of the project?

The project had the following aims and objectives:

(i) **Encapsulate the best of Caerlaverock and place it visually within the wider Solway context**

The project aimed to create a ‘window’ onto a great conservation success story, showing that vast, complex natural habitats can be expertly managed for wildlife and people alike.

(ii) **Engage the local community and general visitors with Caerlaverock’s natural heritage**

We also aimed to implement findings from our 2011 visitor engagement study, undertaken to find out more about our visitors and how best to engage them with conservation messages. This revealed a range of contrasting audience ‘segments’, from expert birdwatchers to families. Following a survey of visitors to Caerlaverock in spring 2012, we identified the following audience segments as a priority for the Centre:

- ‘Sensualists’ (22% of visitors) – motivated by a desire for tranquillity, escape and close contact with nature.
- ‘Interested Birders’ (IB – 19%) and ‘Interested Naturalists’ (IN – 18%) – not experts but keen to learn more about birds and nature respectively.
- ‘Learn together families’ (LTF – 7%) – an important future audience for Caerlaverock, motivated by the desire to learn together as a family.

Thanks to the visitor engagement study, we knew that LTFs, Sensualists and some Interested Birders and Naturalists were intrigued by hides but had no binoculars, little idea how/where to look for wildlife, and often felt very intimidated by a traditional dark, silent hide. We therefore designed the WOW project specifically to meet their needs and help them engage with the area’s spectacular natural heritage. The stunning views and wildlife panorama are perfect for Sensualists, and the new building provides welcoming surroundings, comfortable seating, interpretation panels and interactive displays ideal for LTF, IB and IN, encouraging them to spend longer in the observatory. WOW is also a hub for formal environmental education; a learning space where local schools (1,100 children and students annually of different ages and backgrounds) can learn about the environment and be inspired to protect it for future generations.

(iii) **Link with partners to deliver the ‘Caerlaverock Experience’**

Finally, working in partnership with Scottish Natural Heritage, National Scenic Area, VisitScotland, Caerlaverock Estates, Historic Scotland, Wild Seasons and local tourist attractions and accommodation providers, the project will help to deliver key elements of the ‘Caerlaverock Experience’, a concept initiated by SNH in 2009 and developed further through the Nith Nature Based Tourism Cluster project 2009-2011. This looks to promote the Caerlaverock National Nature Reserve and associated environs, interests and businesses as an area with high ecological importance, a distinct identity...
and a range of interesting visitor experiences. The new WOW building is one of the key orientation and facilitation points of the Experience.

4. How was the funding package assembled?

In 2009 WWT received a generous legacy from Mrs Mona Webster, which was used to support a range of projects across the Trust. £60,000 was allocated to the WOW project, along with £10,000 from the Montague-Panton Animal Welfare Trust and a contribution of £65,828.50 from WWT.

This gave us a total of £135,828.50 towards the project.

5. How much money did LEADER provide?

LEADER generously awarded £135,828.50 – exactly 50% of eligible project costs – thus allowing the project to proceed. We were able to claim £135,806.50 of this grant.

The project experience

6. When did the project take place?

The project began in January 2013 and finished in December 2013.

Following announcement of the LEADER grant in December 2012, detailed project planning continued with the architect and project team. The contractor was appointed in March 2013, and work on site began in late April with the demolition of the old Observatory. The building was completed in September and opened to the public on 4 October 2013.

The formal launch took place on 20 November 2013 and monitoring continued until 31 December.

7. What actually happened?

(i) Planning and tendering

On 17.01.13 the WWT Caerlaverock Centre Manager attended a LEADER claims workshop at Rural House, New Abbey. Following advice from the workshop, the project was registered on the Public Contracts Scotland website on 08.02.13, inviting tenders up until 01.03.13, and the Centre Manager was involved in three site visits from potential contractors.

WWT held tender discussion meetings with project architect Architects Plus between 1 and 14 March 2013, with the contract being awarded to Ashleigh (Scotland) Limited of Dumfries. A pre-contract meeting was held on site on 20 March, followed by a Site Plan liaison meeting at Caerlaverock on the 29th.
(ii) **Construction gets underway**

Just as the whooper swans flew off to Iceland at the end of March 2013, the Ashleigh builders arrived on site.

The first stage was to demolish the old building in April 2013 (see page 2). The subsequent excavation works and laying of the concrete foundations coincided with a period of very wet weather, creating difficult working conditions. However, bog mats were brought in to help improve access for vehicles and heavy machinery, and extra concrete was poured for the foundations.

As the weather improved, the new building started to take shape, and work progressed quickly. By mid-May the steel frame columns, building sub-structure and concrete flooring were in place.
The Ashleigh team then erected scaffolding around the site to allow the timber frame and lift shaft to be installed, followed closely by the internal steel stairs. Construction of the roof structure across all areas began in early June, and by the end of that month the roof coverings and gutters were in place.

The final stages of building work in July (top) and August (bottom) – showing the view back towards and from the Caerlaverock visitor centre
Over July, August and September construction work proceeded at pace, taking advantage of one of our best spells of dry weather for many years. The first residents were a family of swallows who moved in before the windows were fitted. Work carried on around the family of four, which fledged successfully towards the end of July, despite the noise of the builders working and singing.

Excitement grew as the handover date approached at the end of August. True to their word, the contractors handed the completed building over to us on time, just three weeks before the first whooper swans arrived back from Iceland. Snagging took place with the architect and contractors on 30 August, followed by remedial works in September, along with work to create an entrance wetland on the approach to the building.

Visitors were very interested in the new building and by the end of September were clamouring to be allowed in. At the start of October the Observatory was passed by building control and we opened the doors to the public.

The key features of the new Observatory are:

- A tiered design (shown right) which greatly improves views when the Observatory is full, for example during swan feeds – people at the back can see over the heads of those at the front.
- Huge picture windows that flood the hide with light to create an instant visual impact.
- An open-plan exhibition space where local artists, photographers etc can hold residencies/events and display their work.
- A staircase and lift to the upper floor.
- A first-floor viewing tower, the only elevated hide view in Dumfries & Galloway, where visitors can watch whoopers at eye level as they fly down onto the whooper pond in front of the building. The tower also has 360° views across the Caerlaverock reserve and Solway Firth.
- In addition, we created a ‘demonstration wetland’ on the approach to the new Observatory: a wildlife pond fed by rainwater collected from the roof. We hope that this ‘demonstration wetland’ will inspire visitors to take their own small steps for greener living at home, work or school, e.g. by building a pond or installing a water butt.
Fitting out the new Observatory

During October and November, WWT’s head designer Amanda Bradbury developed and installed a complex set of materials to furnish the new Observatory. They included:

- An interpretation board for the new ‘demonstration wetland’ explaining the benefits of rainwater harvesting.
- A set of wallpaper-style panels for the back wall of the Observatory, showing the names and bill patterns of individual whooper swans recorded at Caerlaverock (see detail right).
- Scotland’s first interactive whooper swan database (shown below), allowing visitors to find out about the life history of swans seen from the Observatory by reading and entering the birds’ unique leg-ring numbers.
- A fixed telescope downstairs and tethered bird guides on both floors – a helping hand for people who haven’t got their own equipment.
- Beautifully designed bird ID panels showing species commonly seen from the hide.
- Long graphic panels for the viewing tower, depicting the different habitats on view.
- A semi-transparent finish for the lift door with a print of barnacle geese in flight.
- A ‘wildlife sightings’ blackboard that can be updated daily.
- A board thanking the project funders (see page 13).
- A sound system bringing bird sounds into the hide.
- Padded seats – far more comfortable than the wooden stools usually found in hides!

In the last week of September four glossy ibises, a first sighting for Caerlaverock, landed on the whooper pond and began feeding just a couple of metres from the Observatory – despite the fact that Amanda and her team of volunteers were still working inside. We were thrilled to see these rare and elusive birds looking so relaxed around the new building and its human occupants.
On 20 November we officially opened the Observatory with a very successful afternoon reception and swan feed for project funders and supporters. We were delighted that Simone Tyrie, Peter Ross, Chris Rollie and Rob Wells were able to attend on behalf of LEADER, and that Mr Ross kindly agreed to speak at the event.

The launch – LEADER’s Peter Ross (right) with WWT Chief Executive Martin Spray (left) and Caerlaverock Centre Manager Brian Morrell (centre)

8. **How was the project delivered?**

As described in question 2, the project was a collaboration between a Caerlaverock-based team, led by the Centre Manager, and the Centre Developments Directorate at WWT’s Slimbridge headquarters in Gloucestershire.

Kevin Peberdy, Director of Centre Developments, liaised with the architect, quantity surveyor and building contractor to manage the overall building project. Day-to-day management on-site at Caerlaverock fell to the Centre Manager (Dave Fairlamb initially, succeeded by Brian Morrell) and Reserve Manager Richard Hesketh, who held regular meetings with the contractor to resolve minor issues and ensure that the project moved ahead on schedule.

Project delivery was very smooth and the building was handed over exactly on time.
9. What marketing was undertaken?

During the year we delivered 18 marketing activities using a range of media as evidenced in our targets:

<table>
<thead>
<tr>
<th>Media type</th>
<th>Details</th>
<th>Date(s)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>Website</td>
<td>April and November</td>
<td>Stories on project start and completion</td>
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<tr>
<td></td>
<td>Facebook and Twitter</td>
<td>December</td>
<td></td>
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<td></td>
<td>Visit Scotland e-update</td>
<td>November</td>
<td></td>
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<tr>
<td>Print</td>
<td>Articles in WWT’s Waterlife magazine</td>
<td>3 x quarterly issues</td>
<td>Distributed to 220,000 WWT members</td>
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<td>On-site</td>
<td>Swan feed poster displayed in the visitor centre</td>
<td>November onwards</td>
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<tr>
<td>Radio and TV</td>
<td>ITV Border coverage</td>
<td>1 and 20.11</td>
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<td></td>
<td>Radio Scotland coverage</td>
<td>21.11</td>
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<tr>
<td>Press</td>
<td>Dumfries &amp; Galloway Standard</td>
<td>13.9, 18.10, 22.11</td>
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<td></td>
<td>Annandale Observer</td>
<td>27.12</td>
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<td></td>
<td>Annandale Herald</td>
<td>29.11</td>
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<tr>
<td>Events</td>
<td>Talks to groups by Centre Manager Brian Morrell</td>
<td>Nov-Dec 2013</td>
<td>Brian gave talks to a range of groups about Caerlaverock and the WOW project (see ‘Promotions’ for details)</td>
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10. **Who benefitted from the project?**

The completed Observatory is a bright and welcoming space where everyone can enjoy and learn about Caerlaverock’s spectacular wildlife.

- As well as being popular with experienced birdwatchers, the Observatory is specifically designed to appeal to **new audiences**. The picture windows fill the building with light, providing extraordinary views over the Caerlaverock reserve, and the decor and comfortable seating create a welcoming ‘living room’ feel – a completely different experience from walking into a traditional, dark birdwatching hide with its narrow slot windows and wooden stools. Bird ID panels, birdwatching books and a telescope are on hand to help those who are new to birdwatching and haven’t got their own equipment. The building is also a hub for events such as winter swan feeds (shown above), photography workshops and birdwatching sessions, where visitors can meet the reserve team and local experts.

- The building is designed to provide **excellent disabled access**. The whole of the upper level, which leads to the gallery space, is accessible to wheelchair users, and the lift is wide enough to accommodate both wheelchairs and mobility scooters. At the launch event one of our guests (shown right) arrived with her mobility scooter and was able to drive straight into the lift and go up to the viewing tower with its panoramic views. In the old building the upper floor was only accessible by stairs, so this is a fantastic improvement. In addition, the nearby pathways have been restored, providing a smooth and accessible route from the main centre to the new Observatory.
• It is a key space for **schools, colleges and universities**, who can use it as an ‘outdoor classroom’ to bring their learning to life.

“The children loved the space and the different levels within the ground floor. They weren’t cramped or squashed and all found a place where they could be comfortable as they watched and listened."

Susan Stewart, Teacher at Troqueer Primary School – December 2013

• Finally, we used a local contractor, ensuring that the project provided employment within the area and supported the local economy.

11. **How did the final budget turn out?**

The project was completed without delays and we were able to claim £135,806.50 of our LEADER grant (against an original award of £135,828.50).

Inevitably there was some variation in predicted costs (e.g. a slight overspend on Interpretation), but on the whole we were delighted that the budget went to plan. Any slight overspends against individual project lines were absorbed by WWT.
12. What lessons have been learnt?

This project has run very smoothly and we were thrilled to deliver each of the LEADER milestones on time or ahead of schedule:

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<thead>
<tr>
<th>Milestone</th>
<th>Date to be achieved by</th>
<th>Date achieved</th>
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<tr>
<td>Project initiation</td>
<td>Dec 2012</td>
<td>Dec 2012</td>
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<tr>
<td>Removal of existing Peter Scott Observatory</td>
<td>May 2013</td>
<td>April 2013</td>
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<tr>
<td>Completion of WOW in situ</td>
<td>Sept 2013</td>
<td>Sept 2013</td>
</tr>
<tr>
<td>Official opening</td>
<td>Nov 2013</td>
<td>20 Nov 2013</td>
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The main lesson learnt relates to the monitoring. With hindsight we would have set more modest targets for our target groups in the initial application. This was due to a number of specific difficulties in collecting data:

- Given Caerlaverock’s extraordinary wildlife, many of our visitors are keen birdwatchers. These people are a key audience for the WOW project, but they are regular visitors – for LEADER, they can only be counted on their first visit and not on subsequent visits. With our current admission system it is difficult to estimate how much of Caerlaverock’s visitation is made up of repeat visits, but we estimate up to 50%. As the monitoring went on, most of the people arriving at Admissions had already visited at least once and so had already provided their details.

- Caerlaverock has a small staff team and relies on volunteers to man the Admissions desk. These volunteers were also responsible for checking which visitors planned to use the WOW building during their visit, and then asking these visitors to fill out the LEADER-approved monitoring form. However, two issues became apparent:

  (i) Some volunteers were excellent at soliciting monitoring data and very comfortable discussing the need for this process with visitors. But others, despite being fully briefed, became distracted with other tasks (taking admission fees, filling out Gift Aid forms etc) and as a result only collected data from a fraction of visitors. This was especially the case when groups arrived and the volunteers felt under pressure to clear the queue quickly. Others remained uncomfortable about asking people to complete a form and were therefore likely to ‘forget’, even though staff emphasized the critical importance of collecting LEADER data.

  (ii) Second, we encountered resistance among visitors themselves. Many were unwilling to provide some or all of the information requested – e.g. they refused to leave a full name or address because they suspected it would be used for marketing purposes, though we explained that this was not the case; or they were reluctant to provide age/disability information as they felt this to be private. Finally, many couples and families filled in the form incorrectly – for example, families tended to take the shortcut of filling out a single line summarising all family members rather than spending time listing them individually. Volunteers generally spotted these errors after the fact when it was either too late to
remedy or they were unwilling to ask visitors to redo the form. 36% of our data was unusable, which was extremely frustrating.

We therefore submitted a change request form relating to our target groups numbers and LEADER staff kindly agreed to reduce these in light of our findings.

13. **Will the project be mainstreamed or transferred?**

Caerlaverock is a key tourism destination within Dumfries & Galloway, and the new Observatory will be used as a workshop/event venue by other tourism providers. For example, Wild Seasons has already held two training events in the new building, and it has been used by local photographers to deliver workshops and courses.

We therefore hope that the project will act as an exemplar of best practice for connecting a wide range of audiences with wildlife and conservation messages. In addition, features from the Observatory will be deployed in future buildings at other WWT wetland centres.

14. **Detail the sustainability of the project and/or the exit strategy.**

The WOW project has created a lasting resource for the Centre, its local community and visitors.

The new Observatory is an integral part of the visitor experience at Caerlaverock. Acting as the hub of our engagement with visitors, now and in future years, it will be the main focal point for connecting people with birds and other wildlife, with a daily programme of wildfowl feeds, talks and/or events. The building will therefore be used on a daily basis, year after year.

As this is a key building on site WWT has committed to ongoing management, maintenance, and where appropriate, development of the facilities. This will take place through site planning, budgeting and reporting procedures on an annual basis, driven by the WWT Business Plan.

On another note, the entrance wetland is fed sustainably by rainwater harvested from the roof.

15. **Detail how the project has addressed the LEADER issue selected in the application.**

We applied under ‘Link communities and land together’, and we believe the project has addressed this issue in a highly successful and innovative way.

One of the barriers to engaging communities with their local natural heritage is that important habitats are – inevitably – set aside and often fenced off to protect wildlife. This means that access for people is limited. In addition, the hides that exist tend to be built on the ‘old’ model – dark buildings with small
slot windows and hard stools. We know from visitor surveys that these appeal to keen birdwatchers but deter almost everyone else.

LEADER funding has enabled us to create something completely different: a huge ‘Window on Wildlife’ for people of all ages, backgrounds and abilities. The Observatory is a warm, comfortable and homely space where people can get close to their land and its extraordinary wildlife riches. It is the first hide that visitors encounter on leaving the visitor centre building, just a short walk away, so it is ideally placed to deliver an inspirational first encounter with Caerlaverock’s wildlife. As visitors come through the door, a vast landscape is revealed with, in winter, a view of elusive whooper swans from the Arctic swimming just a few feet in front of the windows. The viewing tower provides panoramic 360° views across the Solway Firth and Caerlaverock Reserve, placing visitors squarely in the middle of their local landscape without compromising the needs of its resident wildlife.

However, as noted under 3(ii), people who are new to wildlife-watching need a helping hand to get started. The Observatory has therefore been designed specifically to aid their learning:

(i) It is a hub for events at which they can learn from interaction with experts. For example, at our popular winter Wild Swan Feeds a warden feeds whooper and mute swans and hordes of ducks right outside the Observatory while delivering an informative talk about these amazing birds, their epic migrations and WW'T’s work to protect them.

(ii) For those visitors who prefer to learn independently, there are bright and colourful interpretation panels, an interactive whooper swan database, a telescope and tethered bird guides – this means that complete newcomers, without optical equipment or any knowledge of Caerlaverock’s wildlife, can dip a toe into birdwatching.

A few quotes below from visitors give a taste of the project’s success in linking visitors of all ages with the Solway Firth:

“On the first floor of the new observatory we watched a marsh harrier as it flew towards us and all the children got a view of this because of the big windows and the square layout of the tower. We also saw the weather coming in as it was a day of squally showers and there was a real change in the weather as the wind direction moved. We felt as if we were in the middle of all of this. I have never seen children so fascinated by weather.”

Susan Stewart, Teacher at Troqueer Primary School – December 2013

“The new observatory was enjoyed by all. The sound system was excellent in keeping the students informed as to what the ranger was doing outside and enabled those with hearing impairment to engage with what was happening. The building was comfortable and accessible to disabled students who benefited from the clear views of the feeding wildfowl and the panoramic views offered by the first floor level, easily accessed by the new lift.”

Doreen Sturgeon, Lecturer at Dumfries & Galloway College, following a visit with a group of disabled students – December 2013
“The Observatory provided an excellent learning base, with interpretation boards providing information on topography, landmarks, and key species around the reserve. Students were able to orient themselves quickly before exploring more widely. The new facilities offer the opportunity to get very close to the birds on the pond, but the design of the upper level also allows a much wider view of their context as they come and go. The lower level is welcoming and spacious, giving an impression of a forward-looking and carefully designed facility which caters successfully for individuals with a wide variety of interests, from birdwatching to photography and learning groups.

The new Observatory offers a truly panoramic view of activities at Caerlaverock, and we are grateful to the WWT for hosting us in November.”

Dr David Borthwick, Lecturer in Literature and Director of Postgraduate Research at the University of Glasgow – December 2013

In summary, this has been an incredibly significant project for WWT Caerlaverock, and we are immensely grateful to LEADER for its vital support. Our report concludes with a selection of quotes from the visitor feedback book and pictures of general visitors enjoying the new WOW building’s learning facilities.
The WOW building’s fixed telescope is a great resource for visitors who are new to birdwatching and haven’t got their own equipment.
Top: a visitor learning about Caerlaverock’s wildlife/conservation management using the beautiful new interpretation panels in the viewing tower.

Bottom: the tethered bird guides are another helpful resource for non-birdwatchers, enabling them to identify and learn about bird species spotted from the comfort of the WOW building.