

Camera Trapping Project

May 2018

Project Summary

From January to end of March 2018 two schools worked with Glasgow Science Centre to capture footage of the wildlife in their local area using camera trapping equipment. Equipment was supplied by Scottish Natural Heritage along with training for Glasgow Science Centre staff in use of the equipment. The schools produced a short film using footage captured on the camera traps and digital cameras, these films were sent to SNH at the end of March to be entered into a competition to win a set of Camera Trapping equipment to keep.

Funding for this project came from a £5000 grant from the Nineveh Trust. This covered staff time for development and delivery and travel to and from schools.



Sanquhar Primary School P6 pupils enjoying time in the sun at The Crawick Multiverse

Partners

Glasgow Science Centre- Project Lead. Planned and delivered the project workshops and liaised with other partners to deliver outcomes for the schools and other partners.

Scottish Natural Heritage- Provided equipment and a one day training session for a member of GSC staff.

The Children's Wood- Supported Hillhead Primary School in their visits to the site, setting up and using the camera and learning about local wildlife.

Hillhead Primary School- P6 pupils were the



Hillhead Primary School P6 pupils setting up the camera trap at school.

KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre



The Crawick Multiverse- Supported Sanquhar Primary School in their visits to the site, setting up and using the camera and learning about local wildlife.

Sanquhar Primary School- P6 pupils were the beneficiaries of the Dumfries and Galloway based project.

Project Activities

To make the most of the opportunity the schools were encouraged to spend class time on the project out with the contact time with partner staff. Both teachers decided to use the project as a class topic for the term and used it to deliver across the curriculum. To get teachers started Glasgow Science Centre provided a list of ideas for tasks or activities that the pupils could do to tie in with the project. Some of the ideas presented were:

- Researching and reporting the wildlife seen on camera.
- Mapping the wildlife in the local area.
- Filming and editing- filming extra scenes, interviews and footage as well as spending time editing the film.
- Create a stop motion film to demonstrate behaviours not caught on camera.
- Storyboard the film.
- Create school displays and deliver school assemblies to get the rest of the school involved.
- Write a short story or poetry about the animals you have seen.

Sanquhar Primary choose to have a full day of activities from 9-3pm, whereas Hillhead Primary School choose to have half day 9-12pm sessions instead. Both schools had an introductory session where pupils were introduced to the project, shown how to use the equipment, found out about biological recording and set the camera up in their school grounds. This was followed by the filming sessions (5 for Sanquhar primary and 6 for Hillhead primary) and then 12 sessions for editing. Each class had two sessions for editing, both learning how to use the software that the school had available.



Sanquhar Primary School P6 pupils dissecting owl pellets in class



Sanquhar Primary School P6 pupils setting up the camera trap at the Crawick Multiverse.

KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre



and editing the film together. Outdoor sessions followed this rough format:

- 9:00-9:30 travel to site
- 9:30-10:30 set up camera
- 10:30-10:45 interval
- 10:45-11:30 environmental / outdoor learning activity
- 11:30-12:00 travel to school
- 12:00-12:15 class debrief and planning for next week's site visit
- 13:00-15:00 classroom activity (Sanquhar Primary school only)

Hillhead Primary School decided to send only 12 pupils at a time to the filming site, meaning each pupil had one filming excursion using the camera trapping equipment whereas Sanquhar Primary school worked as a class, with all pupils being involved at each stage.

Wildlife Sightings

Over the course of the project pupils recorded the wildlife they saw both in person and on camera to produce a wildlife report. These reports were sent to the local Biological Records Centres to contribute towards local biological records. Pupils wrote to the records centres at the beginning of the project to find out about biological recording.

KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre



Records from both schools are detailed below:

Animal	Location of record (Photo evidence available?)		
Mammals	Hillhead Primary School	Children's wood	Crawick Multiverse
Grey Squirrel (<i>Sciurus carolinensis</i>)	Yes + photo	Yes + photo	
Hare (<i>Lepus europaeus</i>)			Yes
Red fox (<i>Vulpes vulpes</i>)	Yes		Yes + photo
Roe Deer (<i>Capreolus capreolus</i>)			Yes + photo
Wood Mouse (<i>Apodemus sylvaticus</i>)		Yes + photo	Yes + photo
Birds	Location of record (Photo evidence available?)		
Blackbird (<i>Turdus merula</i>)	Yes + photo	Yes + photo	Yes + photo
Blue tit (<i>Cyanistes caeruleus</i>)	Yes + photo	Yes + photo	Yes + photo
Chaffinch (<i>Fringilla coelebs</i>)			Yes + photo
Crow (<i>Corvus corone</i>)	Yes	Yes	Yes
Dunnock (<i>Prunella modularis</i>)	Yes + photo	Yes + photo	
Goosander (<i>Mergus merganser</i>)	Yes		
Great tit (<i>Parus major</i>)	Yes	Yes + photo	Yes + photo
Grey Heron (<i>Ardea cinerea</i>)			Yes + photo
Magpie (<i>Pica pica</i>)	Yes	Yes + photo	
Mallard (<i>Anas platyrhynchos</i>)	Yes		
Robin (<i>Erithacus rubecula</i>)	Yes + photo	Yes + photo	Yes + photo
Seagull (sp. unknown)	Yes	Yes	
Wood pigeon (<i>Columba palumbus</i>)	Yes + photo		

KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre



Wren (<i>Troglodytidae</i>)	Yes		
-------------------------------	-----	--	--

Images to support Wildlife Sightings

Images to support wildlife sightings, mostly taken on camera trap, some taken on school or teachers camera.



Grey Squirrel at Hillhead Primary School



Robin at Hillhead Primary School



Blackbird at Hillhead Primary School



Dunnoek at Hillhead primary School



KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre



Blue tit at Hillhead Primary School



Wood Pigeon at Hillhead Primary School



Grey Squirrel at the Children's Wood



Wood Mouse at the Children's Wood



Robin at the Children's wood



Blue tit at the Children's wood



KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre



Great tit at the Children's wood



Dunnock at the Children's wood



Blackbird at the Children's wood



Magpie at the Children's wood



Great tit at the Crawick Multiverse



Red Fox at the Crawick Multiverse



Blackbird at the Crawick Multiverse



Robin at the Crawick Multiverse



KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre





Blue tit at the Crawick Multiverse



Chaffinch at the Crawick Multiverse



Grey Heron at the Crawick Multiverse



Wood mouse at the Crawick Multiverse



Roe deer at the Crawick Multiverse

KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre

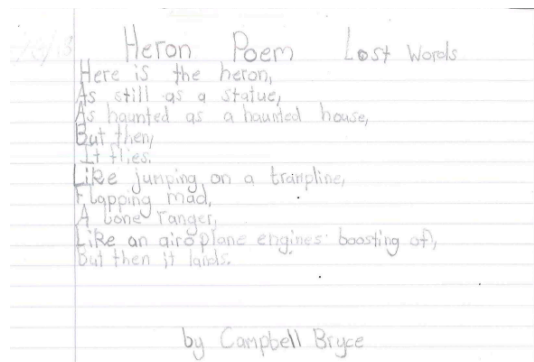


Conclusions

Evaluation

Glasgow Science Centre's Evaluation Coordinator got in touch with the teachers who were involved with the project to find out how they felt the project went. They provided the following feedback (Sanquhar 18/04/18, Hillhead 19/04/18):

- It enabled teachers to cover a wide range of Curriculum for Excellence (CfE areas / cross curricular: 'It ticks so many of the CfE boxes and gets the kids interested in news, for example plastic pollution in the news at the moment' (Sanquhar teacher) Awareness of the environment: 'You'd think that country kids would know about nature but initially they had no ideas of plants and animals whereas now they can identify birds and they are doing additional research' (Sanquhar teacher)
 - Literacy: The Sanquhar pupils wrote poetry using the John Muir's Book of Lost Words and '...some kids who don't like writing wrote the best poems' (Sanquhar Teacher). Hillhead did report writing '...we have to do report writing and this is a good prompt' (Hillhead teacher)
 - Mathematics and numeracy: Data handling.
 - Science: Food chains and classification.
 - Art: Hillhead pupils worked on sketching and are now working with Timorous Beasties (Textile designers in Glasgow) to see how they sketch animals.
 - IT: Video editing.
- It enables team work. The project involved all the pupils as well as other classes in the school and the wider community: 'It brought them together, a great bonding experience' (Sanquhar teacher). Hillhead pupils spread the message across the school and some P7 pupils (not pupils directly involved in the project) were 'inspired' by their peers to get their own camera to take on holiday. Sanquhar pupils are going to invite parents and other pupils to the school to showcase their film.
- It changes attitudes, especially with disengaged kids. The teacher from Sanquhar primary school said that his class had some behavioural difficulties out of school for the filming trip, but said that the project totally turned their behaviour around. 'Kids are more enthusiastic. Some kids went home and did their own additional research' (Hillhead). The Sanquhar teacher said they had just gone over the homework from 17/04/18 which was to record wildlife at



Sanquhar primary school poem from their "Book of Spells"

KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre



home. Where previously pupils would simply say they saw a bird they now enthusiastically list bird's plants and animals by species. 'A large, difficult class and the project has brought them together' (Sanquhar teacher).

- Teachers learned as well, adding to their CPD: 'I learned how to set up and edit a movie. I feel confident enough to do it' (Sanquhar teacher) The Sanquhar teachers are going this week-end to do training for a John Muir certificate and want to continue using it next year. Hillhead are thinking of purchasing their own equipment to go on with the project. 'The equipment is easy to use.' (Hillhead teacher)
- It prompted pupils to do additional homework and research, in particular they are more aware of the environment (for example, pupils tell each other and their teacher about foxes seen in their garden at night.)

From feedback there seems to be very little that needs to be modified, perhaps adding a bit of flexibility as to when the equipment can be used in the week.

Lessons Learned

- Working with partners for delivery led to problem setting up the camera on occasion. While both schools resolved these issues on their own it did mean that for the first couple of weeks of the project Sanquhar primary School did not get any useable footage. As the GSC partner was not involved with delivery this was not recognised and resolved until two weeks into the site visits.
- Limited funding meant relying on the Children's Wood and Crawick multiverse staff to deliver some of the on the ground engagement work. Communication between the Children's Wood and Hillhead Primary School worked well, however communication between Sanquhar Primary School and the Crawick Multiverse was not effective and required frequent intervention. This could be avoided in the future by more clearly defining the roles of each partner. E.g. ensuring the school organised enough staff to travel to the site on their own, providing spare batteries/ bait at the beginning of the project to avoid confusion over who should supply this.
- Extreme snowfall prevented two visits in Glasgow, which was unavoidable. Three visits were not possible to Sanquhar when the school was closed and /or travel down to the school from Glasgow was not possible. The final editing session with Sanquhar was rescheduled to accommodate the final session and so the project ran for longer than expected with Sanquhar. The project works well in winter when some other outdoor education is not possible. However planning to finish a few weeks ahead of schedule so that any cancelled visits can be rearranged is beneficial and advised in any future outdoor winter projects.
- Both schools were able to practice editing in advance and so we verified that their editing software worked well. However while the software was available on the classroom computers in Hillhead Primary School the software was too slow to use in the computer classroom. In the end a small editing team had to work in shifts on the classroom computers to finish the film. Ideally having a suite of laptops that could support the editing software would alleviate that issue.

At the end of the project, Hillhead primary school stored all images and videos on a portable hard drive which worked well. Images and videos that were to be used in editing were uploaded onto shared school folders that pupils could access for the editing. Sanquhar Primary Schools did not have a portable hard drive they

KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre

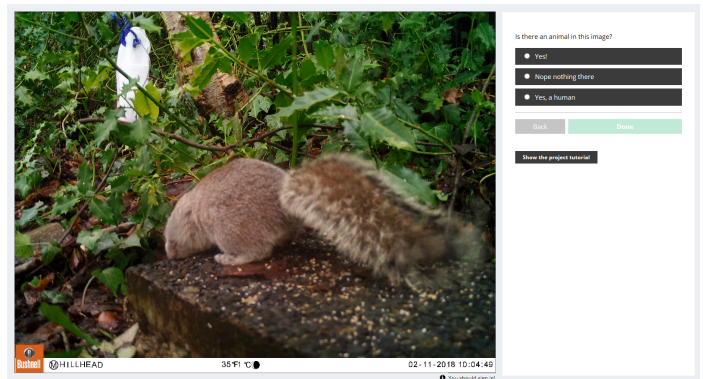


could use and so the images were partly held by Crawick Multiverse and Sanquhar Primary School, making collation and sharing difficult. If conducting projects in the future providing a loan of a hard drive to each school would be advisable.

- Working with a whole class was preferable to working with smaller groups of twelve pupils as each pupil had a more in depth experience. This led to more cohesive team work within the class and better outcomes for the pupils. Some Hillhead primary school pupils missed out on field trips due to bad weather on their filming week.

Key Outputs and Outcomes

- Two **short films** planned, filmed and edited by the pupils using footage captured during the project. One from each school. Currently on the GSC Camera Trapping project wiki site. Videos will be hosted on you tube following SNH deciding on a winner.
- **Wildlife reports** written by the pupils, which details what the pupils found during the project, that have been sent to local Biological Recording Centres to add to Scottish wildlife records. One from each school.
- **Zooniverse Project** “Scottish wildlife” www.zooniverse.org/projects/jogsc/scottish-wildlife where pupils could share images with their family and peers of the wildlife caught on film, allowing the rest of the school community to help with species classifications.
- Supporting work from each school containing **written work** and **art work** completed by pupils throughout the project.
- Both schools have expressed that regardless of whether they win a camera trapping kit as a result of the competition they will fundraise to purchase **camera trapping equipment for the school** with a view to using it in following years with pupils in a similar project.
- Sanquhar Primary School are planning a **film premier night** for the pupil’s parents where they were invited in to watch the short competition film and also a longer film, also edited together by the pupils. The class teacher expressed that for this class it is unusual to have parents come in for a celebratory event and that this was a particularly important outcome for the pupils.



Classification interface from Hillhead Primary Zooniverse Project, created by GSC staff for use by school and school

KEEP IN TOUCH

0141 420 5000 | glasgowsciencecentre

