

# Phenology recording with young children



## Pilot Summary

The Conservation Volunteers worked with Dobbies Garden Centre in Kinross, with their children's gardening group Little Seedlings. The group undertook a Phenology Survey which looked at the indicators of changes to animal and plant growth and behaviour that indicate changes to the seasons.

These timing of these indicators can then be plotted against previous years across the UK for pattern fluctuations that may indicate Climate Change induced adaptation.

The pilot aimed to;

- enable the attendees of the Little Seedlings group to Kinross Dobbies, in wildlife watching and phenology recording activities (Citizen Science)
- trial an engagement methodology for Citizen Science with the Dobbies Kinross volunteer group with a view to produce guidance for that can be used by similar organisations
- learn how best to support a commercial organisation in the engagement of groups of volunteers in Citizen Science activities
- increase participants' skills and knowledge about the environment and wildlife



## Pilot Methodology

On discussion with Amanda James, Community Officer at Dobbies Kinross, we agreed to trial a Citizen Science phenology survey with a monthly childrens gardening group. The survey would compliment gardening activities the group would undertake.

- 6 x 1 hour session involving up to 12 children per session at the Kinross Store allotment garden
- 3 days work on gathering guidance and surveys for Dobbies and work with Amanda James via personal visits, email and telephone to ensure it fits with Dobbies groups session
- An evaluation session is undertaken and a report on the outcome of the methods trialled is produced.

On discussion with Dobbies, the pilot used the Woodland Trust's [Nature's Calendar](#) phenology survey, chosen as it captured exactly the type of simple seasonal changes that we wanted to get across to the young audience.

The website based survey requires user registration to gain access to the website. Once registered you can record and view seasonal events showing the impact of climate change on our wildlife. The user sets a list of recording locations (work, home etc). You can then periodically enter indicative changes that you see around you. These are in categories of Spring, Summer or Autumn, with sections for Trees, Shrubs, Flowers, Grasses, Birds, Insects, Amphibians and Fungi. You enter the date you first observed the changes and repeat the observation and recorded over the seasons. Simple picture sheets were created from [Nature Detectives](#) webpages, creating a monthly Nature Hunt activity for the participants that could also be used as ID sheets of seasonal species likely to be encountered.

Users can use display maps to show how seasonal changes move across the UK and there are reports summarising previous years available to learn how the data is interpreted by experts.

For ease of use, the recording sheet parts of the website were printed off and a copy given to each child in the group. Email and telephone support from Amanda was also offered to the children and parents.

### **The Pilot Group**

The pilot volunteers were Dobbies Little Seedlings group, which consisted of 12 children, some accompanied by adults from the ages of 4 to 12 years old. The children were from the local area and had an interest in gardening and wildlife (or their parents wish them to). The group was led by a Dobbies staff member and supported by a TCV staff member.

### **The Monitoring Activities**

The Little Seedlings Group primarily do gardening during their sessions, but Amanda made time to talk with them about what they'd seen and tried to ensure that any parents that stayed with the group or arrived to collect the children were made aware of the ongoing work that we'd like them to try.

Amanda spoke with the group on the importance of the seasonal changes on gardening and growing as well as the effect on nature around us. Nature's Calendar monitoring is very simple; the first appearance of any of the indicator events that the website lists is noted on the website at the user allocated location.

The group observed the seasonal signs around them at the Dobbies Centre and went off home with the task sheets printed for them by Amanda, to continue the recording later. The group met on the 1<sup>st</sup> Sunday of each month, with the Phenology Pilot commencing in April 2014, ending in August 2014.

### **Pilot Learning**

To ensure that the experiences of the pilot help inform our future approach, we noted as much detail as possible of the progress made throughout. From these experiences below we can make some recommendation to help improve similar future projects.

#### Engagement

Dobbies volunteered their group for the pilot after Amanda James attended a TCV training session on Citizen Science. After an initial meeting to discuss possible methods for a pilot with the Young Seedlings group, it was agreed that the Nature's Calendar survey suited the age group and engagement time window we have with them.

It was originally thought that engagement would be easy as the attendees at the Little Seedlings group were keen and liked to learn and look at plants and insects. The monthly frequency of the Group meant that it was hard to enforce the message of the group and the turnover of new members and loss of regulars became very apparent.

A greater frequency (weekly or fortnightly) of contact with group members would have been better. Getting an earlier start in the year with recording and picture sheets prepared for Spring would have been good. Greater parental involvement in the sessions would have improved the pilot uptake. Some parents stayed during the monthly sessions but others "left them to it" thereby missing the essential messages of the ongoing surveying needs and therefore had little interaction with their children in the project.

#### Set Up

Nature's Calendar recording sheets were printed off from their website for each child. Simple picture sheet from Nature Detectives website created a monthly Nature Hunt type of activity for the participants. These were both designed to be take home activities for children and parents to use.

We talked with the children who attended about the seasons and the changes they bring to nature. This was simple to achieve, but due to their young ages was perhaps not always effective. The link to the parents to reinforce the message was broken/lost as few parents participated in the sessions and then left with the children before the take home activity could be explained fully. Emails were sent to the parents trying to enforce the activities but few responded to Amanda.

### Training

No real training was required for the activity, but it is evident that an explanation of the ongoing need of participation should have been enforced earlier in the pilot. The activity of Natures Calendar only takes minutes to add sighting of seasonal changes.

### Tools & methodology

The activity itself suited all age groups that were involved (4 to 12 year olds). The Nature's Calendar website is easy to use and understand but registering seemed to be an issue for some people. The use of Nature's Calendar was a suitable, straightforward pilot methodology, but greater help for participants (parents) around registering the site at the onset of the project would have helped greatly and reinforced the project aims.

### Data

The Natures Calendar website has set parameters built in so errors cannot be made (eg can't record ahead of time, large numbers are flagged as errors). The data entry was simple and there was no processing required. The website in general was easy to use, easy to navigate, with nice pictures and graphs to display species and data. It was also easy to find your own data once entered and to see maps.

### Feedback

Participants enjoyed being able to view their own data and view the national time series (slider operated) maps and graphs of collected records for previous years displayed species progression across UK. This very visual feedback, was appropriate for the young audience to understand.

### Participants

The pilot group consisted of 12 children, ages 4 to 10 year old. Their role in the pilot was to observe first sightings of birds, plants and animals appearing and note them on the provided Nature's Calendar sheets. These were then to be entered onto the Nature's Calendar website so the records could be entered into the national database and the participants could view their and the wider data through the websites processing facility of national time series graphs and maps.

The participants seemed to get the idea of what they were doing. Some really enjoyed the new animals etc that they were going to see. Participants that already show an interest in wildlife were easier to encourage to take part. The activity is perhaps more suited to the older end of the pilot's age group as some of the very young children found the concept difficult to grasp without close parental input.

### Outcomes

There was gradual attitude change from the participants involvement. It raised some of the children's general interest and awareness of wildlife around them. Due to the pilot, a local School group (with some of the pilot participants in it) began to visit the Kinross Community Garden fortnightly and used Nature's Calendar. This more structured, regular recording seemed to work well, becoming a regular activity and making a lot of records.

## Recommendations

From the lessons learned in the previous section we recommend that those wishing to carry out a similar Citizen Science phenology survey with a similar age group of participants should;

- Make sure the “Why?” of the regular recording is thoroughly conveyed to all involved. It is important that participants know the benefits to them (health, education, fun) and to the wider environment (better management, policy change etc).
- Make sure that the Nature’s Calendar survey recording is done on a weekly or fortnightly basis as a minimum, especially in April to May when biological production really ramps up.
- Ensure there is parental involvement throughout as this is essential for the reinforcement of the survey aims.
- Clearly explain the Nature’s Calendar pilot aims to parents as the “take home” nature of the Nature’s Calendar activities can clash and be confused with the focus on the other activities of the busy meeting days.
- Gaining parental involvement in the pilot activity is essential to bond the child’s understanding of their part in the survey and to ensure the survey is routinely completed.
- Assist with a setup/registering activity at the start of the pilot or select a leader to set people as needed.
- Aim for a weekly or fortnightly recording regime to greatly benefit participation levels and data quality.
- Aim for an age group from 7 year old plus, up into early teens. Very young participants need parental guidance to gain an understanding of the aims of the survey.
- Try and recruit a supervisor, such as a teacher or akela to strengthen the needs of young children participating in Nature’s Calendar. They could assist encouraging ongoing participation and helping with data input and retrieval.