Background

Dragon’s Den was an interactive exhibition celebrating a year in the life of a newt for National Science and Engineering Week. It was held at Ferry Meadows, a popular country park in Peterborough on 10th March 2012 and at Palacerigg Country Park in Cumbernauld, North Lanarkshire on 17th March. The event in Cumbernauld was part-funded by the British Science Association to enable a member of staff and volunteer to travel there, as there were no other National Science & Engineering Week events planned for that region.

The aim of the exhibition was to improve basic knowledge of newts; their classification, lifecycle, and UK species but also to allow families to discover interesting facts about them. We wanted people to come away thinking “Newts are cool”, and be able to identify them out in the wild. Tying in with NSEW’s 2012 theme of World on the Move, the idea was also to highlight the way newts move between different habitats, and need more in their local area.
than just a pond. This is one of the reasons Great Crested Newts can cause issues for
housing development – there is a need to protect their wider habitat and not just their ponds.

On entering the exhibition, participants tied on a giant newt tail and made their way through
four different areas corresponding to different parts of a newt’s lifecycle. The different
areas had models, posters and live interpretation to help visitors learn about newts. The
challenge was for the newts to find a token in each area which related to a newt fact – they
had to find the correct token, and there were some red herrings thrown in. The tokens were
attached to the new tails.

**Preparation**

This exhibition was designed and created by Froglife staff, volunteers and by participants of
Froglife’s Wildlife Ambassadors programme. This project involves people who are Not in
Education Employment or Training in a six week training programme, and the NSEW event
was their final celebration of their work on the project. 5 Wildlife Ambassadors helped to
staff the NSEW session in Peterborough, with one volunteer also travelling to Scotland for
the first time to help with the second event. The set up of the Peterborough event was also
supported by young offenders undertaking their community service hours through Froglife’s
FACT programme. In Cumbernauld, the exhibit was promoted, set up and run by Scottish
Froglife staff and volunteers.

Having a large group of volunteers from the Wildlife Ambassador project encouraged
visitors, as Ambassadors spread the word amongst friends and family, and many came along
to see the exhibit through word of mouth. This is also true of the Cumbernauld event. Other
promotion came in the form of posters displayed at the Visitor Centres on both sites,
inclusion on the Ferry Meadows website, events listed on the BBC Things To Do website, and
Froglife promotion through Facebook (800 fans), Twitter (2000 followers), Croaks (e-
newsletters), and our events webpage (1800 subscribers). This Froglife promotion resulted
in the event being advertised in the local press in Peterborough, local BBC radio and
Mumsnet. In Cumbernauld, press releases were sent out by a volunteer, and the story was
picked up by Cumbernauld News who sent a photographer to cover the event on the day.
Attending the exhibition

In Ferry Meadows in Peterborough, the exhibition was housed in the classroom used for environmental education. This beautiful room, decorated with animal and plant murals was well situated next to the car park, café and toilets. In Scotland, the exhibit was hosted in a traditional Longhouse next to the children’s play area and visitor centre. Most of the participants were attracted in by a Wildlife Ambassador volunteer dressed in a frog costume. Many young people had their photo taken with the frog and using the costume in this way was very successful. This technique was particularly important for the Scottish event as the Longhouse was tucked behind some trees and participants needed to be guided in by our frog mascot. The vast majority of visitors were passing trade, attracted by the friendly frog. This meant that we caught most of our visitors by surprise, and added some engagement in science into their leisure time.

On entering the exhibition, visitors signed in and were taken to a poster describing what a newt is and what the different types of newt are. They were then given a choice of newt tails to wear. Each tail was made from felt and cardboard attached to a belt and decorated to look like either a Smooth, Palmate or Great Crested male newt. They were then guided by staff
and volunteers through the different areas of the exhibition. Each area had a large interpretation poster, as well as live interpretation by the staff and volunteers.

**Area 1. The Hunting Ground**
The newts first entered the Hunting Ground where they had to evade the giant grass snake, fox, toad and hedgehog and pick up a token representing something that eats newts. The red herring token in this area represented people, and visitors had to identify that newts were not something that people usually eat! Tokens were then stuck to their belt and they continued on into the Dragon’s Den.

**Area 2. The Dragons Den**
Having escaped the predators, the newts moved to an area that represented the kind of habitat a newt likes to hide and hibernate in. In this area they could snooze under a brick or hide under leaves and find another token to add to their belt. The red herring token here was a bed, as it was unlikely that you would find a newt hiding there!

**Area 3. The Disco Pond**
The next area was the Disco Pond designed to explain how male newts dance to attract a mate in spring. Participants were encouraged to dance like a newt by showing off their belly, arms and legs, and flicking their tails, to impress the giant lady newt sitting by the dance-floor. We had music, bubbles and lights to bring this area to life. The majority of participants had a go at dancing like a newt, with some really going for it! Once a dance had been performed, newts were told that the lady newt had fallen in love with their dancing and that they had earned a heart-shaped token for their belts.

**Area 4. The Picnic Pond**
This area was designed to look like a pond, with giant frogspawn, tadpoles and bugs swimming in it. There were tokens to search for that represented different things that newts like to eat. The red herring token here was a portion of chips. Children reaching this point were declared qualified newts and as a reward for their hard work, they received a cupcake decorated with frogs, a newt sticker, and a National Science & Engineering Week sticker. Many participants sat down at this stage to undertake some evaluation and see what they could remember about newts. A few young people went back around the exhibit again, remembering what they had done in each area.
Many people took part in the reminiscence section of the exhibit before leaving with educational booklets and a NSEW bookmark. This was for Froglife’s My Wild Life project which collects childhood wildlife memories and shares them between the generations. After leaving the event, people were directed to a table where they could pick up publications and information about Froglife projects, including two of our advice booklets containing advice for amphibian and reptile spotting and wildlife-friendly improvements in the garden. It is hoped that this will help to inspire local families to try things at home and stay in touch with Froglife.

**Evaluation and learning**

Everyone attending the event was asked to write down three words to describe newts before they put on their tails, and then again once they had travelled through the Dragon’s Den. This was designed to assess any attitude or knowledge change as a result of taking part in the event. Adults were asked at the end of the exhibition fill out a standard National Science and Engineering Week evaluation form with space to comment on what they learned and enjoyed. Young people were asked to fill out a sheet which asked 4 questions of increasing difficulty to allow for different levels of ability and language.
Some of the evaluation forms
Comments from the evaluation forms (complete with spelling mistakes)

Analysis

- Across the 2 events, we engaged with 237 people
- Of the 65 children’s evaluations completed:
  - 64 (98%) of them circled the “happy” face after reaching the end of the exhibit
  - 34 (52%) correctly named all 3 types of newt
  - 11 (21%) named 1 or 2 types of newt correctly – some individuals also said things like ‘cresty newt’ and ‘spotty newt’, and they weren’t getting the names right but they were starting to tell the difference between the species.
- Of the 39 adult evaluations completed:
  - 38 (97%) rated the event as “enjoyable” (1 did not circle any choice)
  - 36 (92%) rated the event as “interesting” (2 did not circle any choice and 1 circled the middle choice)
- 27 (69%) rated the event as “inspiring” (9 circled the middle choice and 3 did not make any choice)

The 3 words used to describe newts were analysed using wordle (http://www.wordle.net/) which creates a pictogram with the words where the larger words are the most repeated in a list.

**Before**

Many people left their paper blank or stated that they didn’t know anything about newts. Lots of people had a basic knowledge of newts being small slimy things a bit like a frog that live in ponds.

**After**

After the exhibit, most people had learned and remembered that newts dance to attract a mate. They also remembered that they hide under leaves. A large number remembered that they are eaten by snakes and that they eat tadpoles. Adults also learned a lot through completing the event with their children. Many parents did not know what newts were or anything about how they live. We received lots of comments from adults saying “Thank you. I never really knew what a newt was.”
Event Highlights

- A Polish mother with two primary school aged children and very little English came around the event, and we tried to communicate all the different messages with pictures and actions! They seemed to love it and were the most committed dancers in the Disco Pond area
- Jake, the Wildlife Ambassador who wore the frog costume for most of the day, loved wearing it and felt that he might like to now become a children’s entertainer. Part of the Wildlife Ambassadors project is to help signpost people to new careers, so we will see what we can do to support Jake in his new interests
- The Ambassadors had been learning about ponds, amphibians and reptiles for the last six weeks, and explaining things to families and young people was a great way to reinforce what they had learned and share their new knowledge
- One young person went around the exhibit twice – the second time she led one of the staff members around, explaining what she had done in each area

Overall conclusions

This event really highlighted the lack of knowledge in both adults and young people about newts. Many people had either no knowledge, or negative ideas about them before the event. Some people’s knowledge was incorrect, for example thinking they are reptiles or that they will turn into frogs. We were very successful in turning some of these thoughts around as demonstrated by the language change between the two wordle pictograms.

The overwhelming success of the event was the involvement, both before, but particularly on the day, of the Wildlife Ambassadors. These young, predominantly homeless, people put themselves forward to engage with members of the public, something many of them had previously found difficult or never done. Froglife staff were blown away by how hard the Ambassadors worked and their passion for sharing their new newt knowledge! They really enjoyed taking part and this enthusiasm came across and was commented on by many participants.

It was clear from the evaluations that the Disco Pond was the most popular part of the exhibition and the area which caught the imagination of everyone taking part. This section, the section where young people hid under leaves, and the area where a giant grass snake hissed at them were the most interactive parts of the exhibit and the most remembered.
We attracted lots of passing families due to both venues being so close to amenities and on such popular outdoor sites. Using the frog suit to encourage people to stop and find out about the exhibit was very successful. We did a large amount of advertising for the event, but were more successful in attracting passing people than bringing people specifically along to the event. Perhaps lack of knowledge about newts meant that the event didn’t sound particularly appealing, or more advertising was needed. However, this did mean we were able to engage audiences who were not necessarily attracted to science events and show them that learning about wildlife can be fun.

For future National Science & Engineering Week events we plan to involve more youth groups in the design and creation of the exhibit, as this will encourage attendance through word of mouth. We also plan to use this year’s exhibit at other events and education sessions with schools. In Cumbernauld one participant requested that the exhibit be taken into a school close to where Froglife is already improving ponds so that the children can understand the wildlife in the ponds and take care of it in the future.

The time taken to go around and engage in the activities could have been a bit longer – and the young people could have been encouraged to play more in each area and have more time pretending to be newts. Some young people really embraced this and spent time hiding under leaves and dancing – others perhaps needed a bit more encouragement.

The event was a big success overall with participants learning about important native amphibians and their lifecycles in a fun and unique way. The icing on the cake was being given the runner-up prize in the Community Award category which will be an immense source of pride for the Wildlife Ambassadors and Froglife as a whole.