



Outreach REPORT

Fossils for Everyone: Palaeontology Outreach in Children's Hospitals

Being in hospital is not fun. Besides feeling poorly, long hours spent in lonely wards can be boring, making an upsetting situation even worse. For both adults and children, hospitals employ types of entertainment therapy like drawing and music to help pass the time, but why not try science too?

A few years ago, I had the idea to tap into this underserved area of outreach for science and palaeontology – children's hospitals. As palaeontologists, we have the gift of knowledge in a scientific topic that is of interest to people of all ages, but especially children. Although most museums around the world are excellent at outreach, sometimes people who could benefit most from the outreach cannot access museum exhibitions, which is how Dinosaur Doctors was born.

I approached the Palaeontological Association a little over a year ago with my idea to do outreach in children's hospitals; despite never having led this sort of venture before, I was intrigued by the research on arts and music therapy in hospitals and learned that it actually does help patients to heal faster. Taking one's mind off a bad situation can go a long way in recovery. I successfully applied for an Engagement Grant (PA-OE201503) and, after being funded, I formed a partnership with the Royal Hospital for Sick Children in Edinburgh and their partner charity, the Sick Kids Friends Foundation. The Friends Foundation was very pleased to add a scientific event to their regular programme and I had no trouble finding support for this unique venture.

After a few months of development I was able to visit the hospital six times in the summer and autumn of 2016. I spent the months getting ready for Dinosaur Doctors by writing and designing an activity book, buying fossil replicas that could be disinfected for use in the hospital, and creating a



Shaena bringing fossils to the kids in the Royal Hospital for Sick Children in Edinburgh. Photo courtesy of the Sick Kids Friends Foundation.



backpack that I could leave with children at the conclusion of the programme. The interesting thing about an outreach programme like this is that while planning needs to happen, the day of the event is more off-the-cuff than some educators are used to.

The hours I spent in the hospital were some of the most valuable of my career. With a dinosaur-shaped suitcase full of fossil casts and some small real fossils I bought at Mr Wood's Fossils in Edinburgh, I visited different wards at the Sick Kids, usually three per two-hour session. Every ward presented new challenges, but overall, it wasn't too difficult to get



Some of the fossil casts used in the Dinosaur Doctors outreach programme. Photo courtesy of the Sick Kids Friends Foundation.

children to look at dinosaur fossils and ask great questions. Another benefit of a programme like this is not only entertainment for the patients, but for the accompanying parents and siblings. Showing the children and their parents fossils and telling them about being a palaeontologist not only let me connect with them, but gave family members a new way in which to connect with each other.

In some instances, I would show a small group of two or three children fossil casts and dinosaur models and discuss palaeontology with them if they wished. In other cases, the child was bed-bound, so I brought materials to them. Mobility on the demonstrator's part is needed – a small fossil kit that can fit in one suitcase is crucial, along with an assistant who can help with the logistics in case the group gets larger than expected. As the facilitator, I needed to be aware of the child and their mood/wellbeing because it is important to have the ability to assess what type and duration of interaction was suitable for each child. When it was time to leave, I left each child with a backpack printed with the Dinosaur Doctors logo containing an activity book that I designed, crayons, stickers, and a plaster cast of a Megalodon tooth that can be painted or coloured. Leaving the children with a 'present' at the end of the session is extremely important; not only does it give them something to do later, but it also leaves them with a happy memory of the Dinosaur Doctors experience.

As science educators we can learn much from programmes outside the classroom or museum. It is a valuable activity for those of us who spend most of our time in an academic environment, as it forces us beyond our comfort zone into settings where we use our skills to reach out to a new sector of the population. Even if the objective of a programme like Dinosaur Doctors is not performance in an exam or memorization of facts, but rather just having fun, I feel it brings one back to the principles of palaeontology that attracted us in the first place – the excitement that comes from learning about our world and what once lived in it.

Going forward, I hope to make Dinosaur Doctors a more permanent venture and turn it into a not-for-profit charity that can be based at a museum or other public institution. I hope an idea like Dinosaur Doctors will inspire other palaeontologists to share their knowledge with other underserved populations and try to seek out other audiences that have been previously overlooked to benefit both the public and we palaeontologists.

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