Felicity Muth
Animal Behavior Society conference, USA

I am currently a postdoctoral researcher without any funding for attending conferences, so this grant allowed me to go to Boulder, Colorado to attend the 50th Annual Conference of the Animal Behavior Society.

The tobacco hornworm Manduca sexta.

Since January I have been conducting research at the University of Arizona in Anna Dornhaus' social insect lab, initially funded by NSF and then by an ASAB research grant. I have been investigating how bumblebees learn to handle morphologically complex flowers. As bumblebees forage on a wide variety of different flowers, that vary in how complex they are for the bee to find the nectar, one puzzling question is why and how they learn to handle more complex flowers, when there are simpler options available that do not require learning. I have been testing *Bombus impatiens* on artificial flowers in an experimental array to investigate this question, which may shed light on how other animals persevere with learning a task when simpler options are more readily available. I found that bees were more likely to persevere with learning how to handle complex flowers when the reward from the complex flower was much greater than the simple flower. However, surprisingly, there was a large amount of variation between individuals in the strategies they adopted; I am now looking into this further.

Attending the Animal Behavior Society conference allowed me to present my findings from this experiment to scientists and students working on animal behaviour, and receive valuable feedback. As I did my PhD in another aspect of animal behaviour, nest building in birds, at the University of St Andrews in Scotland, the conference also allowed me to meet researchers working on social insects and more widely the behaviour community in the United States.

At our outreach stall outside the museum of natural history in Boulder, Colorado.

Photos taken by Kate Webbink.

After the conference myself and some other postdocs and PhD students spent a morning demonstrating various aspects of science to the public. After four days of listening to science and talking about science with scientists, it felt refreshing to be able to share some of our enthusiasm with non-scientists. I helped out on a stall alongside members of Dan Papaj's lab (University of Arizona). We had live tobacco hornworm caterpillars (*Manduca sexta*) for people to handle, as well as pipevine swallowtail caterpillars and butterflies. Through a number of games we highlighted to children and their parents how other animals' sensory systems differ from our own, and how we as humans use our visual system preferentially over other sensory systems.

This opportunity allowed me to improve my communication skills both to academics (through talking about my work) and to the general public through the post-conference outreach event.

This was an extremely valuable experience, and I would encourage others to apply for the Society of Biology travel grant to have such an experience. I have written more extensively about my experience at the conference online at my blog at Scientific American.