



# The Alice McCosh Newsletter Autumn 2017

## The Alice McCosh Trust

The Trust was set up in memory of **Alice McCosh** (née Carswell), (1966 – 2001) and officially became a Trust in 2006. Alice was passionate about natural history and the environment. She lived and travelled across many parts of the world, and studied and worked in these fields. The Trust was established to perpetuate Alice's name and her lifetime's work. In this way, we hope we have provided, and continue to provide, other young people with the opportunity to do the sorts of things that Alice loved.

The Trust is regulated by The Office of The Scottish Charity Regulator (OSCR) and governed by a Trust Deed. Its purpose is *“To advance education by providing or assisting with grants for work or study related to natural history and/or the environment.”*

## 2015-16 award holders

Last year the Trustees made two awards each with a very different focus: one to Kasim Rafiq from Liverpool John Moores University to study Leopards in the Okavango Delta, and the second to Lee Raye to translate part of the *Scotia Illustrata* from Latin into English.

### Kasim Rafiq

#### Leopards in the Okavango Delta

Some leopard facts:

- Their conservation status is vulnerable;
- They have disappeared from an estimated 48 - 67% of their range in Africa;
- Human persecution is a key driver with most mortality occurring when they encounter humans outside of reserve boundaries;
- Current strategies to reduce human-leopard encounters, such as fences and translocations, are not effective.

This project's aim was to aid the development of scent and acoustic based leopard deterrents that could be used to reduce human-leopard conflict.

Kasim has spent several months in Botswana and intends to be in the field until the end of this year. To date camera traps have been placed at scent marking sites to gain an idea of how long scent signals are detectable, who is interested in the signals, and how interested parties respond.



He has also begun playback experiments to investigate the effects of acoustics in causing leopards, lions and hyaenas to initiate or avoid encounters.

Preliminary results suggest that whilst leopards avoid areas where they have heard lions calling, lions will approach leopard vocalisations. Although, more experiments need to be carried out, the results could have important implications for projects looking to manipulate leopard movements by playing the sounds of competitors.

A full report of Kasim's findings will be submitted to the Trustees on his return in 2018.

## Lee Raye

### *Scotia Illustrata*: pre-industrial Scotland

*Scotia Illustrata* is a Latin natural history written in the early modern period by Robert Sibbald (1684).

The text has two unusual features:

- (i) it crowd-sourced its data from questionnaires sent to people around Scotland, and
- (ii) it focuses exclusively on the geography, medicine, flora and fauna found in Scotland.

Environments across the world have gone through considerable changes over the last two to three centuries. This has led scientists to argue that we are in a new era called the Anthropocene, and one of the most important marks of the Anthropocene has been a world-wide decline in biodiversity. *Scotia Illustrata* gives us information about Scotland's biodiversity before the Anthropocene began, and can act as a baseline to show us the changes which have occurred across Scotland through the period.



After translating the section of *Scotia Illustrata* (II:3) on wildlife, Lee compared the results with modern day conservation data to work out how the fauna of Scotland has changed between the seventeenth and twenty-first centuries. This comparison has now been submitted as an article to The Antiquaries Journal.

Today of the species detailed in the *Scotia Illustrata*:

- Seven species have become locally extinct;
- Two species are now critically endangered;
- Five species are endangered in Britain;
- Five species are vulnerable in Britain;
- 37 species are listed on the OSPAR\* list and on the Birds of Conservation Concern Red List.

The evidence of *Scotia Illustrata* suggests that the Anthropocene has had a dramatic effect on Scotland's natural heritage. *Scotia Illustrata* could be used in the future by conservationists as a guide to re-wild Scotland's biodiversity to a state comparable to its 1700 levels - before the Anthropocene began.

\*OSPAR is the mechanism by which 15 governments and the EU cooperate to protect the marine environment of the North-East Atlantic ("OS" for Oslo and "PAR" for Paris)

## 2016-17 award

Early this year the Trustees awarded a grant to Charlotte Carne of the Species Recovery Trust. Charlotte will be working on a project to save one of Britain's rarest wildflowers, Field Gentian (*Gentianella campestris*).

The project aims to improve current understanding of the ecology of the Field Gentian. This species has experienced a dramatic decline over the last few decades. Without clear information on the causes of this decline and guidance on methods to improve management for this species, conservation is extremely difficult.

## Applications are now open for the 2017-18 award

The closing date is the 30th November 2017 and the successful applicant will be announced in early 2018.

### Cards for sale

Gecko cards, Mouse cards and Butterfly cards can be ordered on The Alice McCosh Trust website, with Happy Christmas printed on the inside, or as a blank card for your own message. Every penny goes to the Trust.



### Our website

And don't forget to have a look at [The Alice McCosh](http://The Alice McCosh) website for all the latest news, how to apply for a grant and the award holders' reports.