

THE *Alice* McCOSH TRUST

Newsletter

Autumn 2024

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Welcome to the Autumn 2024 AMT newsletter, which gives an overview of the amazing range of projects the Trust has been funding recently:

Ben Yoxen, *International Otter Survival Fund (IOSF)* - Otter Survey Techniques

Leo Clarke, *Bangor University* - Investigating the impacts of climate change in sea turtle reproduction.

Josie McPherson, *University of Edinburgh* - Investigating the behaviour of poisonous frogs.

Saskia McCracken - *Awful Creatures: Encounters with Britain's Unlovable Species.*

Friends of Ashton - Marsh Fritillary butterfly project.

Keep reading to get a flavour of what they have been up to.....

And a reminder – please help us by spreading the word to all budding natural historians and conservationists that applications for an **Alice McCosh** grant are now open, details can be found [here](#).



Field work on the Isle of Benbecula

IOSF Student Research Grant

For the second time The Alice McCosh Trust awarded a student research grant to the IOSF. This allowed two students, **Sarah Green** and **Freya Ryan**, (both from Bangor University) to gain an insight into otter research techniques.

As reported [here](#) the fieldwork was undertaken on the Isle of Benbecula, in the Outer Isles on the West Coast of Scotland under the expert tutelage of an experienced ecological surveyor, Andrew Rothwell.

A full report of the training programme will be published in the 2024 issue of the [IOSF Otter Journal](#).

Is “clutch-splitting” a way to go in the conservation of sea turtles?

A fascinating thought – could “clutch-splitting” be a low-cost management intervention for the conservation of sea turtles?

Leo Clarke and colleagues from Bangor University set out to try and answer this question by undertaking field work in the Republic of Cape Verde, off the coast of West Africa. A full report of their findings can be found on [The Alice McCosh](#) website. And in conclusion – a cautious yes.

“Clutch-splitting” is reducing the size of the sea turtles nest of eggs. The theory being that by reducing the number of eggs the metabolic heat generated by the eggs will also be reduced. And as higher nest temperature determines the sex of the hatchlings (warmer temperatures producing a greater number of female hatchlings) lowering the nest temperature, at a critical time, will in theory produce a more balanced sex ratio.



Sea turtle hatchlings

Predator presence on behaviour in Neotropical poisonous frogs

Josie McPherson from the University of Edinburgh was awarded a grant to undertake a research visit to Nourgaues Nature Reserve in French Guiana with a research laboratory from the University of Bern.

The project involved studying a river island population of poisonous frogs *Allobates femoralis*. In this species, the males transport their tadpoles on their backs to water bodies.



Allobates femoralis

These water bodies (buckets) have been artificially installed and are now used naturally by the frogs. Some of these water bodies contained dragonfly larva - the tadpoles' predators - and others did not. Over time Josie performed repeated behavioural assays on individual tadpoles with or without the dragonfly larvae and compare the behaviour of those raised with the predators and those raised without predators.

Josie is still completing video analysis and statistical analysis so may have some updates this time next year but in the meantime you can read her report [here](#).



Field trip set up

Awful Creatures: Encounters with Britain's Unlovable Species

Saskia McCracken has been travelling across Britain to meet conservationists, wildlife experts, rangers and most importantly, the underappreciated animals they have expertise on.

She has spoken at length to many individuals and discovered lots of interesting facts. Did you know wasps are pollinators as well as being an organic insecticide saving the agricultural industry millions of dollars every year; slug slime inspired surgical glue is being trialled for major heart surgery; and bats may sound like tap dancers, bubbles or a sabre!



A wasp in amber over one hundred million years old

Saskia has published a fascinating short piece about wasps which you can read [here](#) with incredible photos. During the project she managed to secure a book deal so watch this space and discover more amazing facts and in the interim read her update [here](#).



Friends of Ashton

Ashton Secondary School near Glasgow has been busy planting insect and especially butterfly attracting plants. They are still finalising the pond to attract the rare and elusive Marsh Fritillary, and are confident that once the pond is finished the Marsh Fritillary should find them.

They have also been working with the bordering Seven Lochs Wetland Park rangers and have been adopted by the University of Glasgow who will add a scientific dimension to this project – Well Done [Friends of Ashton](#) 😊



Pond area – work in progress

Insect attracting plants

