

Summer 2025



## Bolton Fell and Walton Mosses Newsletter

### Bat walk

Thank you to our volunteer Hazel (a member of Cumbria Bat Group) and Nik, visiting expert from Hampshire Bat Group, for leading a bat walk for us on a warm May evening. We learnt and compared our human hearing range to bats, who live in a world of clicks and messages thousands of Hertz higher than us, allowing them to communicate in the dark by sending and receiving their high pitch codes. We all showed our age when we did an experiment and the youngest lad in our group, age 9, was the one who could hear the highest frequency pitch, by a long way! We learnt about bat ecology and saw and echo-located the Geiger-counter like clicks of Common and Soprano Pipistrelle as the light faded. Beautiful photography as always from our volunteer Paul Murray, who is creating quite a library of stunning images for us on the Reserve.





# School visits to Bolton Fell Moss

Using some legacy funding from the Cumbria BogLIFE project that funded the restoration work at Bolton Fell Moss, we were able to offer funding to local schools to cover their transport costs to allow them to come on a visit for the day. The reserve offers the perfect place for outdoor learning, helping to inspire minds to grow a love for the natural world.

Across the last academic year, we delivered 9 school visits, with over 200 children visiting the nature reserve, many for the first time. We delivered sessions in all weathers – from freezing cold, to very hot and even some torrential downpours, but all children who came had a great time. Thank you to our wonderful volunteers Claire, Gill and Hazel who helped support these visits.

We are looking forward to welcoming more school groups to Bolton Fell Moss next year.

If you would like to find out more about booking a school or group visit to Bolton Fell Moss, please get in touch with Ros our Engagement Officer ([ros.campbell@naturalengland.org.uk](mailto:ros.campbell@naturalengland.org.uk)). We offer a fully risk-assessed educational programme that can cater to all ages



## Study shelter mural

The interior of the study shelter at Bolton Fell has been transformed thanks to the work of Ailsa Brock Murals. We no longer have blank walls but instead a colourful mural that tells the recent human story of the bog from peat cutting days. If you are ever on site when the shelter is open, please ask to come in a look.



Before



During



The completed mural





## British Gas Volunteers

During August, we got some great work done when three groups of British Gas engineers came to Bolton Fell Moss to help us with some work on the reserve. They have helped open up the views out over the peatland from the boardwalk where scrub was beginning to invade – if you visit regularly you will see the difference and it should make it easier to spot some of the wildlife too.



## Water level sensor trial

In order to determine appropriate management plans for the reserve, we carry out a lot of monitoring, including of water levels on the bog. For a peatbog to be healthy, we need water levels to be high enough to create the right conditions for peat formation, but not so high that the ground is too wet for our peat forming plants to grow – a bit like Goldilocks and her porridge, we need water levels across the site to be just right. We have a network of water level sensors around the site which a contractor helps us with managing and maintaining, however, we have to manually download the data from these sensors, meaning data from them isn't available in the real time and needs processing before it can be used.

Protecting peatlands requires accurate, real-time data, and Plant-e, a Dutch company, have developed a sensor (the SensorStick) that they hope can deliver that. In August, the company visited Bolton Fell and installed 10 new water level and temperature sensors across the site for a 6-month trial. They hope that these sensors will help support peatland restoration at Bolton Fell, reduce carbon emissions and preserve biodiversity in an innovative and environmentally friendly way.

The new sensors are autonomous and can remotely monitor water levels and temperature in even the most challenging locations. The SensorStick has satellite connectivity, so data is transmitted seamlessly, eliminating the need for on-site visits. The sensors will provide data 4 times a day that will be visible online.

Amazingly, the SensorStick also harvests its own electricity directly from plant roots and soil microorganisms in peatlands, offering an alternative to the traditional battery-powered solutions. This helps reduce the maintenance needed for the sensors and helps minimise the environmental impact of data monitoring.

We are looking forward to collecting our first readings from the sensors and seeing how they perform at Bolton Fell over the next few months.



Justin and Ryan, who came over to Bolton Fell Moss from the Netherlands, installing the trial sensors



# Cumbrian Invertebrate Group visit to Bolton Fell Moss



On 29<sup>th</sup> June, 17 members of a combined Cumbrian Invertebrate Group/Carlisle Natural History Society met at Bolton Fell Moss for a day looking at the invertebrates on the site. The weather was hot and sunny and a good range of invertebrates was seen, generating 204 records of 161 species from 17 orders with more records still to be collated.

Amongst the species seen were a couple of individuals of *Agapanthia villosoviridescens* (Golden-bloomed Grey Longhorn), a recent arrival in Cumbria and the only non wood-boring longhorn in the UK, its larvae living in thistle stems amongst others. A butterfly that we were asked to look out for was the Large Heath (*Coenonympha tullia*) and one was seen towards the end of the day. Several Painted Lady butterflies were seen, indicating an influx from the Continent. At least one Emperor moth (*Saturnia pavonia*) larva and those of Oak Eggar (*Lasiocampa quercus*) and Drinker moths (*Euthrix potatoria*) were also seen. Interestingly, two of the Eggar caterpillars had died of a virus infection. Some of the small water bodies were netted and produced a reasonable range of water beetles.

Several moth traps had been set up overnight around the reserve and while showing the contents to the assembled members the large tabanid horsefly *Tabanus sudeticus*, one of the largest British flies, settled on the concrete beside us to warm up in the sun. The traps themselves produced nothing unexpected but a Poplar Hawk-moth (*Laothoe populi*) and Garden Tiger moth (*Arctia caja*) excited comment.

The group would like to thank Natural England for permission to record on the reserve.

David Scott-Langley



*Agapanthia villosoviridescens*



Oak Eggar larva



*Pirata piraticus*  
(species of wolf spider)

Photos: © Paul Murray



# Cumbrian Invertebrate Group

When David Scott-Langley moved to Cumbria in 2021, he noted that Cumbria had various natural history interest groups – Bat group, Fungus group, Botany group, Amphibian and Reptile group etc – but there was no group organising field trips specifically for invertebrates. There was a Facebook group for Cumbria Insects and Invertebrates but the contributors were either interested members looking for IDs or observations made by the more knowledgeable. What was needed was a co-ordinated, mixed group of people interested in the local invertebrate fauna made up of county recorders, experts and people who wish to learn about particular invertebrate groups, with special emphasis on field trips.

In 2024, David set up the Cumbrian Invertebrate Group with the intention of holding approximately 8 field meetings per year, and it has proved to be well attended by the mix of people as hoped. The first season generated some 900 records of approximately 550 species. The group are happy to visit nature reserves, SSSIs, private landowners requesting surveys, or any other sites of potential interest. A report of each field meeting, including a species list, is sent to the landowner and records are also sent to the Cumbria Biodiversity Data centre. At least one newsletter is sent out to the membership each season.

The Group is not intended as an alternative to professional ecological services.

Membership of the Group is free and anyone wishing to join should contact David at [cumbrian.invertebrate.group@gmail.com](mailto:cumbrian.invertebrate.group@gmail.com)



The Cumbrian Invertebrate Group on their recent visit to Bolton Fell Moss



## Species spotlight

Volunteer Paul Murray has been busy capturing some amazing photos of the creatures that call Bolton Fell Moss their home. Here's just a few of the species he's managed to photograph:



**Common Lizard** – often seen basking on the boardwalk on a sunny day. One visitor counted over 120 lizards on their walk around the boardwalk!



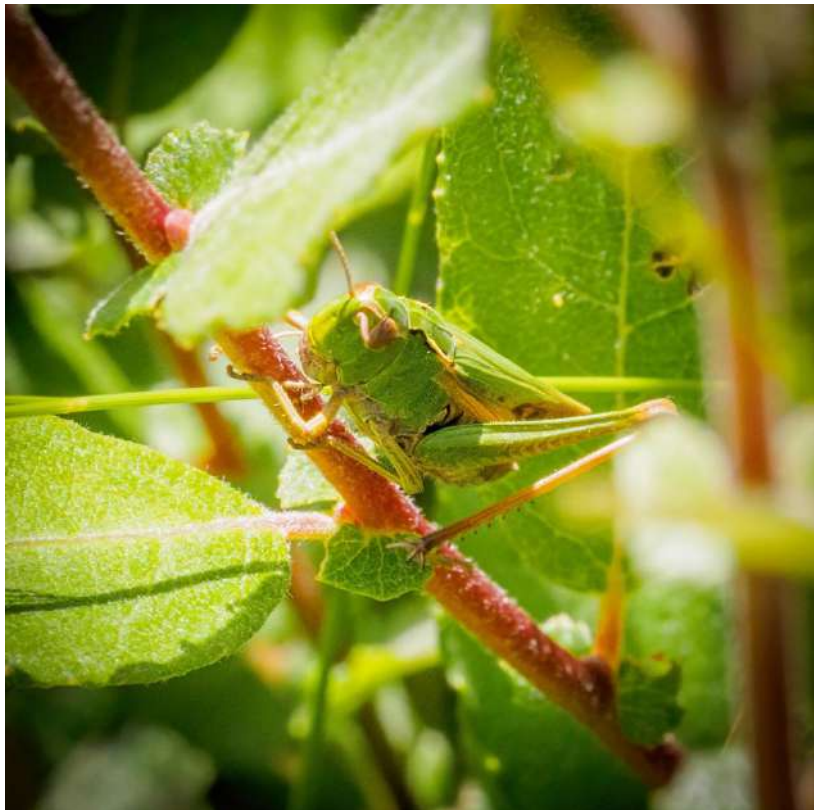
**Drinker Moth caterpillar** - this moth is called the drinker because the caterpillar drinks drops of dew from grass stems



**Common blue damselfly** –the UK's most common damselfly and can be found around almost any waterbody



**Common Frog** – Paul was stretched out flat on his stomach, leopard crawling along the boardwalk to capture this great shot!



**Common green grasshopper** – males can be seen rubbing their legs against their wings to create a 'song' for the females.



**Cased caddisfly larvae** - Caddisfly larvae live underwater, where they make cases by spinning together stones, sand, leaves and twigs with a silk they secrete from glands around the mouth. The larvae then live in these shelters.



# Volunteering at Bolton Fell Moss

We are looking for new volunteers to join us at Bolton Fell and Walton Mosses NNR to help support nature conservation.

- Variety of roles available, including supporting education visits, volunteer wardens, species monitoring and practical work
- No time commitment
- Volunteer when you can

If you would be interested in becoming a volunteer, contact Ros to find out more.



Volunteer David clearing overgrown bracken from the boardwalk

## New for autumn 2025: Volunteer Work parties at Bolton Fell Moss



Join us at Bolton Fell Moss on our new monthly work parties to help make a real difference to nature. Working with our reserve staff, you'll be using your skills, developing new ones and meeting people. Work parties will be from 10am – 2 / 3pm on the first Tuesday of the month (subject to weather conditions):

- Tuesday 7<sup>th</sup> October 2025
- Tuesday 6<sup>th</sup> January 2026
- Tuesday 4<sup>th</sup> November 2025
- Tuesday 3<sup>rd</sup> February 2026
- Tuesday 2<sup>nd</sup> December 2025
- Tuesday 3<sup>rd</sup> March 2026

There's no commitment to attend all of them, just come along to the days you can make.

To find out more or sign up for a work party contact Ros.

Ros Campbell, [ros.campbell@naturalengland.org.uk](mailto:ros.campbell@naturalengland.org.uk).

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### Contact Us:

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