Duddon Dispatches

June 2025

Improving the natural habitat of the River Duddon, the River Lickle, Kirkby Pool and Black Beck for the benefit of wildlife, our community and visitors

Above: Duddon Estuary at Sandscale Haws

Many of our seasonal summer activities are now starting up again after a pause over winter. Our main focus during this period is always Himalayan balsam bashing which kicks off in early June, but we have many other volunteer activities planned too. I am looking forward to a busy summer of monitoring and improving the river environment in our catchment, with the Duddon Catchment Project workstreams now all up and running.

Our AGM in March was a highly productive meeting and with over 30 attendees it was the largest AGM yet! Thank you to all those who came along and contributed. It was a great opportunity to recap the fantastic achievements we had last year and to talk through the plans for the year ahead. As always it was very useful to have the agencies we work with present, and they all gave informative reports on their areas. With so many activities that will make a real difference to the catchment in place for this year, it was a meeting full of enthusiasm and optimism.

We are delighted to be holding another social event this summer with a guided walk at Sandscale Haws National Nature Reserve. There has been much discussion over this critically important habitat recently with the planning application for holiday lodges at Roanhead generating much opposition (the decision is still outstanding at the time of writing). It is a fascinating and beautiful area, and I hope that many of you will be able to join us for the guided walk followed by a picnic - hopefully in the sunshine! More details of the event can be found on page 26.

After our fascinating visit to the FBA last summer, we are excited to have been invited back to assist them with their annual mussel tagging. A number of us will be volunteering there in June helping with this time-consuming but critical task.

Lastly, I want to extend my thanks to all those DRA members who have volunteered across the wide range of activities that we now have in place from MoRPh surveys and electrofishing, to dormouse boxes and mink rafts. It really is wonderful to have so many people involved in these important areas.

There are updates on many of our volunteer activities in this newsletter - please do get in touch with us if you would like to get involved. We are always very grateful for any help you can give. To volunteer or find out more, just email **duddonriverassociation@gmail.com**. If you'd prefer to speak on the phone, please call me on 07712 252753.

As always, you can keep up to date with all our activities via Instagram, our Facebook page and our members' Facebook group.

Best wishes,
Rick Browne (DRA Chair)

Contents

Grey squirrel control - can you help?

With Cumbria being a critical area for red squirrels, one of our Duddon Catchment Project workstreams is controlling the grey squirrel population.

We are in need of some more people to site and monitor squirrel traps. No experience is necessary, just an ability to get out and about in the catchment.

If you are able to help with this important work to protect our red squirrels, please drop us an email at duddonriverassociation@gmail.com or call Rick Browne (07712 252753).

Above: A room with a view! This dormouse box is situated in beautiful bluebell woodland.

Dormice boxes update

Work has been progressing well with our project to locate dormice boxes in suitable woodland sites across our catchment.

We are right at the northern limit for dormice, and although it is very rare to see these rare and shy creatures, they have been spotted in our catchment and we hope to grow the small population.

Fifty boxes have been made for us by Haverigg Prison and we have started siting these in broadleaved woodland with either a thicket coppice structure or mature woodland with a good understory, which provides the most suitable habitat for dormice.

If you have suitable woodland and are happy for us to put up boxes there, please get in touch with us by emailing duddonriverassociation@gmail.com.

Above: Himalayan balsam, a widely prevalent invasive species

Himalayan balsam - please report it!

Over the past few years we have made much progress removing swathes of Himalayan balsam, a non native species which colonises riverbanks and fields, through our volunteer balsam bashing events.

This year we'll be back tackling areas that we have consistently worked on, as well as any new areas that are spotted. If you come across any Himalayan balsam, please report it to us so that we can speak to the land owner and if needed schedule a team of volunteers to bash it.

Bashing balsam before it goes to seed is crucial to stopping its spread, as each plant is capable of sending a shower of seeds across a wide area. Shallow roots make Himalayan balsam fairly easy to pull up by hand, with nothing more than a pair of gardening gloves and a bit of a tug required. Where there are particularly large and dense stands, we now have a brushcutter to help deal with its speedy removal.

Last year saw 45 volunteers involved in this important activity, and around 190,000 plants destroyed. If you'd like to get involved this year, please get in touch with us as we always need extra pairs of hands!

Please report any sightings of Himalayan balsam or other invasive species (e.g. Japanese knotweed, skunk cabbage, giant hogweed) to us at duddonriverassociation@gmail.com or log it on INNS Mapper: www.innsmapper.org

Join our volunteer WhatsApp groups

After the introduction last summer of our balsam bashing WhatsApp group which transformed the way we organised our balsam bashing volunteer sessions, we have introduced groups for all the other initiatives that form part of the Duddon Catchment Project. This allows us to keep everyone updated with progress and quickly share details of volunteer sessions that are planned.

The WhatsApp groups we have set up are:

- Balsam bashing
- Electrofishing
- Riverfly surveys
- Water quality monitoring
- MoRPh surveys
- Tree planting
- Mink rafts
- Grey squirrel control
- Dormice boxes
- Bat monitoring
- Wildlife cameras
- Data management

If you'd like to get involved with any of these activities and join the relevant WhatsApp group(s), then please drop us an email with your mobile number (duddonriverassociation@gmail.com) and we'll send you invitations to join the groups.

Welcome to our new members!

We are delighted to have had so many new members join us over the past few months, many of whom have volunteered to help with the Duddon Catchment Project's various workstreams, getting involved with everything from tree planting to river surveys.

We are always amazed by the incredible expertise our members bring, with some having spent years working in conservation and associated areas, and we are very grateful for the specialist support they can give us.

However, anyone can make a difference - all you need is interest and enthusiasm, plus a few spare hours to help with activities like tree planting or balsam bashing, or assisting with surveys. Training is also available when needed for those wanting to learn new skills like undertaking riverfly surveys. Please get involved wherever you think you can help out!

Wildlife cameras

by Nick Lancaster

As part of the generous grant funding from Cumberland Council, the Duddon Catchment Project has invested in four wildlife cameras. We have been using these for the past few months as we start to build up information on biodiversity in our catchment.

Capturing information about biodiversity is always important, but it is particularly important due to the relative lack of data for our area. Cumbria Biodiversity Data Centre shows that data for our catchment is lower than for other nearby areas.

Whilst knowledgeable individuals, often those who work or spend a great deal of time on the land and by the river, know the flora and fauna of the area, this data isn't recorded in an easily managed way or in a way that is accessible to organisations.

The more data we have and the more species we can demonstrate inhabit our area, the more interesting our valley is and the easier it will be to help protect those species.

Wildlife or 'trail' cameras are a relatively simple way to watch, monitor and record wildlife in areas, providing a 24/7 record without the need to sit and observe for hours on end, and without the presence of a person who may deter wildlife from visiting the location.

The cameras can be strapped securely to a tree and are weatherproof, designed to operate for long periods in a standby mode, requiring only low power (usually from a battery), until they are triggered to record.

Wildlife cameras use a combination of motion detection and infrared technology to capture pictures or videos of wildlife. When a person or animal moves within the camera's field of view, the motion and heat emitted trigger the camera's PIR (passive infrared) sensors to record a video or take a picture.

To enable the camera to take pictures at night time or in low light, infrared LEDs are used. The LEDs emit infrared light, which although invisible to humans and most animals, allows the camera to capture images in the dark.

Once captured, the images are stored on an SD card in the camera which can then be downloaded onto a computer. The cameras we have chosen are wireless, and can theoretically connect to the mobile phone network and transmit images to a phone or computer, avoiding the need to visit the camera and retrieve the SD card. However with the inconsistent mobile coverage in the valley, this is proving a little harder than anticipated!

The four cameras we use are deployed in rotation, with two being left in position in the field whilst the other two cameras' captured images are taken home

Below: a badger and a young red deer stag are captured on our trail cameras using infrared LEDS to capture images at nighttime.

and downloaded before being switched back. Cameras are left in the same place for about a month and whilst in place they are checked weekly.

Once the images and information have been downloaded (we capture the date and time of each video/image taken and the temperature) they are then uploaded to iNaturalist which feeds into the national database and through to CBDC.

The past couple of months have seen trials taking place at locations convenient for frequent access, however now we are confident on how to use the cameras, they will be deployed further afield with our team of volunteers looking after them.

To date we have captured roe deer, red deer, foxes, badgers, grey squirrels, hares and various birds. We are now trying to capture evidence of weasels and stoats by building a camera trap/box and placing that in a location where we believe these animals to be active.

We hope to obtain funding to enable us to purchase additional cameras which will greatly increase our capacity and allow us to adopt a much more structured approach to how we use them.

Over time, this will help to build up a record of the biodiversity in our catchment and in doing so identify where and what interventions might be appropriate. As the evidence base improves it will help landowners understand and manage the biodiversity on their properties. This will be useful for securing grants and also to help protect sensitive sites in the future.

About the author: *Nick Lancaster is part of Sustainable Duddon as well as the DRA and has been instrumental in setting up the Duddon Catchment Project and gaining funding for the project. He describes himself as 'an enthusiastic amateur who is constantly learning and developing his knowledge and skills but who is only at the start of his education'.*

Below: a hare is captured on our trail camera.

Cumbria Biodiversity Data Centre

Cumbria Biodiversity Data Centre (CBDC) is a not for profit organisation, based in Tullie House Museum in Carlisle. The centre is a one-stop shop for Cumbria's biological records, biodiversity and geological information. CBDC collates and manages data which is then used by wildlife enthusiasts, consultants, planners, researchers and members of the public for education, research and to enable better informed decision making for all matters that impact on the environment.

Find out more about CBDC: www.cbdc.org.uk
Submit your wildlife data to the CBDC: www.cbdc.org.uk/recording-wildlife/share-your-records/

There are handy apps that can be used by anyone interested in helping build up data, to log information on sightings. CBDC and other data projects are able to access the data from these apps.

iNaturalist is available on mobiles and desktops. This enables the user to take and upload photos or record sounds to accompany observations that are shared with an online social network of people interested in gathering biodiversity data. iNaturalist can help identify the plants and animals around you whilst generating data for science and conservation and it has a map feature enabling the user to explore what has been already logged in that area. We will be establishing a 'Duddon Catchment Wildlife' project in the app. www.inaturalist.org

Similarly, **iRecord** can be downloaded onto your mobile phone (or used on desktop) and is an easy way to record data with an automatic GPS location function. iRecord's goal is to make it easier for wildlife sightings to be collated, checked by experts and made available to support research and decision making. www.irecord.org.uk

iNaturalist records feed into iRecord, so only choose one app to avoid record duplication! There is some more information about these apps in Chris Arthur's article on page 17.

Above: Electrofishing on the Logan Beck, a tributary of the River Duddon, just north of Duddon Hall.

Electrofishing results from 2024

By Hannah Teagle

Annual electrofishing surveys are carried out by South Cumbria Rivers Trust (SCRT), aided by volunteers, in the Duddon Catchment to assess juvenile salmonid (salmon and trout) populations.

These surveys are essential for tracking population trends over time, allowing the Trust to monitor how juvenile salmonid numbers change and the effectiveness of ongoing projects aimed at improving river health and supporting fish populations.

Salmonids are considered key indicators of freshwater health and the overall functioning of river catchments. Their presence and abundance reflect the state of the aquatic environment, making them a valuable resource for assessing water quality and the effectiveness of land and water management practices. This data supports current projects and helps inform future funding proposals.

Seven sites were surveyed in the Duddon catchment, five on tributaries of the River Duddon and two on the River Lickle. Sites were selected due to locality to existing projects, or to expand the dataset of sites monitored in previous years. Sites were surveyed within three main areas; the United Utilities funded Raw Water project area, the Upper Duddon Landscape Recovery area and the Lower Duddon Catchment Partnership project area.

The four surveys in the Upper Duddon catchments were repeats of 2021 and 2022 surveys, taken to obtain baseline conditions for the Landscape Recovery Project. Salmon were only found during one survey on Rake Beck. Populations were classified as poor, however this showed improvement on the 2021 survey where following drought conditions, salmon had been reported as absent. Trout fry and parr both also improved, both also absent in the 2021 survey, they were found to be excellent (fry) and fair (parr) in 2024.

Identified as an area for improvement, a bufferstrip was installed on the lower reach of Castlehow Beck in 2022, which has been establishing over the last two years. Whilst trout parr were absent, which may be due to the size of the beck during the surveyed reach, trout fry were found to be good. No fish were found in the surveyed reach of Cockley Beck, this was a decline in comparison to a previous survey in 2022, however populations were found to be low in both instances. Similarly, populations in Dale Head Gill were identified

to be consistently poor, with only trout fry recorded.

Two Lickle sites were surveyed, Appletreeworth Beck and Croglinhurst. Both sites were last surveyed in 2022, providing an indication of populations on the Lickle. No salmon were identified in the 2024 surveys, despite being found in low numbers on Appletreeworth Beck in 2022. Trout fry populations were found to be consistent or slightly decreased, whilst trout parr had remained consistent or slightly increased, likely due to annual variation.

A new site, at Logan Beck, was surveyed prior to the installation of several large woody debris features. The features were installed to increase fish refuge areas on the beck. Salmon were not found, and trout populations were classified as poor and very poor. The beck however was a stronghold for the endangered European eel, with 11 caught during the survey with more identified but missed. It is hoped that the newly installed fish refuges will increase salmon and trout populations, while maintaining the good population of eels. Eels were also found at Rake Beck and Appletreeworth Beck showing their presence in both the Duddon and Lickle.

Right, above and below: At the end of an electrofishing session, the captured fish are identified, measured and logged before being returned, unharmed, to the same 50 metre stretch of river.

Below, Table 1: Comparison of National Fishery Classification Scheme (NFCS) classes for Trout between 2024 and past data for the Duddon and Lickle.

	Trout Fry			Trout Parr		
Site	**2021**	**2022**	**2024**	**2021**	**2022**	**2024**
Rake Beck	Absent	Not Surveyed	Excellent	Absent	Not Surveyed	Fair
Dale Head Gill	Not Surveyed	Poor	Poor	Not Surveyed	Absent	Absent
Cockley Beck	Not Surveyed	Poor	Absent	Not Surveyed	Absent	Absent
Castlehow Beck	Not Surveyed	Not Surveyed	Good	Not Surveyed	Not Surveyed	Absent
Appletreeworth Beck	Not Surveyed	Excellent	Fair	Not Surveyed	Very Poor	Good
Lickle (Croglinhurst)	Not Surveyed	Fair	Good	Not Surveyed	Good	Fair
Logan Beck	Not Surveyed	Not Surveyed	Very Poor	Not Surveyed	Not Surveyed	Poor

Above: Riverfly monitoring of the River Lickle - in the background Steve Benn can be seen kick sampling.

Riverfly monitoring: an introduction

By Steve Benn & Joshua Caulcott-Cooper

Of the many activities that our volunteers are involved in, riverfly monitoring is one of our most popular. This article is the first in a series of features and aims to provide more information on why we carry out this activity and what we are looking for. We will look at the survey method we use, share an overview of the groups of riverfly we monitor, and take a more in depth look at one of the riverfly groups, Stoneflies. Future articles will examine the other groups that we monitor.

Background information

The Riverfly Partnership consists of a network of organisations, including anglers, conservationists, entomologists, scientists, water course managers and relevant authorities, working together to promote understanding of riverfly populations, protect the water quality of our rivers and actively conserve riverfly habitats. The Riverfly Partnership is hosted by the Freshwater Biological Association (FBA). One outcome of the Riverfly Partnership is the Riverfly Monitoring Initiative (RMI) which provides a simple, standardised monitoring technique which groups (such as our Duddon River Association) can use to detect changes in river water quality.

Why do we do it?

Riverflies are common inhabitants of freshwater. In their larval stage they are adapted to specific environmental conditions, called niches, meaning that individual species are restricted to limited areas and are present in the water all year round, experiencing flood and drought conditions which pose significant threats to spate (flashy) rivers such as those found in the Duddon catchment. Furthermore, riverflies are exposed to pollution from sewage and agricultural runoff, and other human activities which may lead to habitat change.

Riverflies form a vital link in the aquatic food chain, removing detritus, and providing food for fish and terrestrial predators. Importantly, a riverfly's sensitivity to changing water quality together with the narrow niches they occupy make them strong indicators of what is affecting a stream. Hence, riverflies are sometimes referred to as 'canaries of the rivers'.

What we do

To undertake riverfly monitoring, DRA members visit an identified stretch of the Duddon River, or one of her tributaries, six times annually during the summer months and carry out the standard survey technique of kick sampling.

Kick sampling

Kick sampling is a nationally standardised survey method of collecting benthic river samples. The river substrate is disturbed by the action of kicking for a time of three minutes and the river itself carries the disturbed fauna into a net held close to the feet of the kick-sampler. Six stones are then picked from the river bed, placed inside the net and rubbed with the hands to loosen any invertebrates that are on the stones; this takes approximately one minute.

The collected sample is then placed into the sorting tray, the individual organisms in each of the eight

riverfly groups sampled are then identified, counted and recorded on the field data sheet. Finally, we return home and submit our record(s) to the national database.

Anglers' Riverfly Monitoring Index (ARMI) monitors count the number of riverflies they find in eight key groups. From these numbers, an ARMI score is generated for that sample. Each site has a trigger level, decided by the ecology contact from the statutory agency, which shows the minimum ARMI score that samples at that site should have if the river is in acceptable ecological health. If the ARMI score of a sample is lower than the trigger level for that site, the monitor would then take a second sample to confirm the trigger level breach. Once confirmed, the statutory agency is informed.

It is important to understand that riverfly surveys produce coarse data and cannot provide direct information about diversity or abundance but they do provide a good indication of any potential reductions in water quality.

Above: a juvenile Perlidae (predatory stonefly family) is identified from the sample taken.

Groups of riverfly

The eight riverfly groups monitored in the surveys include the following groups or 'taxa':

- Cased caddisflies
- Caseless caddisflies
- Mayflies
- Blue-winged olive flies
- Stoneflies
- Flat-bodied flies
- Olive Baetidae flies
- Freshwater shrimps

Above: a sample is examined and sorted, with any riverfly groups present identified.

The three key Orders are:

- Ephemoptera (Mayflies)
- Trichoptera (Caddisflies)
- Plecoptera (Stoneflies)

You will notice that we include Gammaridae (freshwater shrimp) in the eight taxa monitored. By sampling these eight taxa, scientists are provided with an overview of the condition of water quality of the preceding weeks.

Other monitoring projects in close location (for example e-fishing) help scientists to build a more improved understanding of the health of our Duddon river and her tributaries.

Stoneflies

Stoneflies are insects classified under the Order "Plecoptera". These are primitive species, lacking advanced gills or breathing mechanisms thus requiring large amounts of oxygen in the water. This is the reason why most of these species are found in the uplands where the fast-flowing white-water streams provide a very high oxygen content.

This primitive breathing ability means that stoneflies are susceptible to any impacts from pollution on oxygen content and their respiratory function. Consequently, Stoneflies have a low tolerance to water pollution and environmental changes and this is why they are very useful as bioindicators of good ecological quality.

Stonefly adults are generally weak-flying or sometimes flightless with soft, flat bodies and usually have drab colouring. As adults, this insect holds its wings folded flat over the body or wrapped around the body when at rest and usually the female is larger than the male.

Above: Perla carlukiana (a stonefly). The size of this specimen, collected in July 2024, suggests it was probably two years old and would have emerged as an adult in spring 2025. The 'hairy armpit' gills are visible in the side-on photo and are a key feature for identifying Perlidae from other stoneflies.

A number of emerged stoneflies have no mouthparts and therefore are incapable of eating in this final stage.

Adult stoneflies are usually observed crawling along amongst stones or vegetation on the banks of rivers, preferring cool, running water.

Life cycle of stoneflies

Female adult stoneflies drum their abdomens on a surface to attract a mate. Mating takes place on the ground or on vegetation, with the female then depositing her eggs onto the water surface, before the eggs sink down to the river bed.

Immature stoneflies are referred to as nymphs (this is the stage where we catch them when kick-sampling) and are aquatic. After going through approximately 30 moults (shedding of skin) the nymph will have spent a year in the water, although the larger species can spend up to three years in the water, after which they are ready to assume an adult stage.

When ready to assume an adult role, the nymph crawls out of the water and onto bank-side stones or tree trunks ready for adult emergence. Soon after taking up position on the bankside the nymph begins its final moult. The skin splits down the back and the now winged adult emerges, soft at first and a pale colour, but after a few hours the stonefly hardens and takes on a darker colour.

A member's query

Recently, one of our members submitted a photograph of an adult stonefly along with what he thought was its scientific name *Dinocras cephalotes* and asked us to confirm its identity. (See photos at the top of the next page). This interest from one of our members is the reason we begin our coverage of the riverfly monitoring groups with the stonefly.

Unfortunately, none of us on the committee are experts in riverfly identification – but we carry out our volunteer work with, and on behalf of people who are experts – so we turned to staff at both the SCRT and the Freshwater Biological Society (FBA) on the western shore of Windermere.

The FBA responded by identifying the stonefly as an adult female species known as: *Perla carlukiana* (formerly known as *Perla bipunctata*).

This stonefly species '*Perla carlukiana'* is a common component of sampling from the Duddon River and her tributaries. Past studies demonstrate that the nymphs of this particularly large stonefly predate upon other macroinvertebrates, including Chironomidae, Psychomyiidae and Baetidae, with some also consuming detrital matter and algae. However, many other stonefly species are non-predatory.

We hope that in future issues, DRA members will provide a short write up on the remaining seven of the

Above: The photos of an adult stonefly which were sent to us for identification. The FBA helped us to correctly identify it as Perla carlukiana. This is the adult of the immature Perla carlukiana stonefly nymph pictured on page 10.

Riverfly Monitoring Initiative groups, and, where possible, any of the other notable species that we capture in the nets that are not included in the eight target groups. If this article has piqued your interest in riverflies and you'd like to write the next article in this series, please get in touch!

About the authors:

Steve Benn, our DRA Secretary, spent 24 years of his working life in Australia. While there he gained a BSc in Environmental Studies. He returned to England in 2005, to the role of Marine Pollution Officer with English Nature. Later, with Natural England, he worked as a Senior Reserve Manager on South Cumbrian National Nature Reserves (NNRs). Steve retired in March 2022, allowing him to pursue his life-long passion for nature and extend his volunteer roles to include Secretary of the DRA.

Joshua Caulcott-Cooper is the Geomorphology and Woodland Officer for the Wyre Rivers Trust. He recently completed a Masters in River Environments at the University of Birmingham, and previously spent five years working in onsite conservation across Cumbria.

Useful information

More information about the Riverfly Partnership can be found on their website:
www.riverflies.org

Our members may want to investigate riverflies for themselves and staff at the FBA indicated that anyone can connect with the following links in order to identify a range of river invertebrates:
www.riverflies.org/recording-schemes
www.riverflies.org/plecoptera
www.amentsoc.org/insects/fact-files/orders/plecoptera.html

And finally, here's a PDF download of 'A review of the stoneflies (Plecoptera) of Great Britain', a report commissioned by Natural England that makes for interesting reading:
https://publications.naturalengland.org.uk/file/4692340432175104

Want to volunteer for riverfly surveys?

If you are interested in getting involved in riverfly surveys there are two ways to do this. You can either train to lead the surveys by taking a one day course which are run once or twice a year by SCRT. After completing the course you will be given a location to survey six times during the summer months.

Additionally, we also need volunteers to assist our trained surveyors on an adhoc basis. You don't need to be trained to do this, but would just accompany the survey leader and help with the survey. Requests for help will be advertised on our riverfly survey WhatsApp group.

Please email us (duddonriverassociation@gmail.com) and we can add you to the WhatsApp Group and let you know when the next training course is running.

Above: Sea trout

The Duddon catchment: a fisherman's view

By James Pennefather

Many of our members enjoy the rivers in our catchment through their interest in fishing, a great excuse to spend hours by the water enjoying nature! DRA fishermen members are a great source of anecdotal evidence of the number of fish in the river, as well as sightings of otters and mink, and they also have a vested interest in improving the riverine environment. Keen fisherman, James Pennefather, shares his knowledge of fishing in the catchment.

A history of abundance

In the River Duddon above Rawfold Bridge you can still see the remains of an old stone weir and netting hoops which were installed in the 1840s to catch the plentiful salmon and sea trout that used to run up the river to spawn each year.

This period of abundance apparently lasted until the 1960s. One of the local woodsmen used to say that in the 1950s he could sometimes look over one of the bridges and "you couldn't see the bottom of the river for fish". If you read Ian Davidson's book '*Dynamiting Niagara*' you will read about enormous salmon in the River Lickle in the immediate post-Second World War era. Another valley resident, Joe Jones, used to go night fly fishing for sea trout, "and if I hadn't caught at least one fish before I had finished my first cigarette, I would pack up and head back home".

The situation today

Those heady days of abundance ended in the 1960s when the UK's migratory fish populations were decimated by Ulcerative Dermative Necrosis (UDN) which caused severe skin lesions on wild salmon and sea trout and led to high mortality rates across the country. Sadly, the Duddon catchment was no exception and its wild fish population has remained stubbornly low ever since. There are plenty of suggested possible causes for this, not least an extended period of 'acid rain' which made it harder for insect larvae - a source of food for young trout and salmon parr - to thrive in the water. This in turn led to lower rates of fish survival before they were mature enough to migrate down to the sea. And then once at sea, a more industrialised fishing industry further impacted population numbers. In-river poaching still remains a problem: in 2018, two men from Coniston were convicted of a serious poaching incident at Birks Bridge (dozens of salmon were reportedly killed) by the Environment Agency.

As a result, anyone fishing on our river system is no longer really motivated by the thought of 'catching supper'. We are there because we love being in nature and spending time next to such a beautiful river. Yes, we still get a thrill from seeing a 'bar of silver' as we approach a pool to cast a fly over it, but most of us would agree that this reaction is as much because we are simply delighted to see evidence that 'the natural world is still working' - in much the same way as everyone rejoices each spring to see a swallow on its miraculous return from South Africa - as it is driven by any remnant 'hunter-gatherer' instincts. You just have to look at the catch and release figures to see that our anglers return over 90% of the fish they have hooked.

The positive impact of fishing

One of the benefits of spending so much time on the river is that anglers are a brilliant source of information for wildlife observations (including sightings of less welcome wildlife such as mink) as well as keeping a 'riverbank presence' which can discourage poachers. Our resident anglers have also always been among the first to 'give back' to the environment, forming working parties to improve the riparian habitat for nature. It is no coincidence that the original

membership of the Duddon Rivers Association twenty years ago was largely made up from the fishing community.

How to get involved in fishing locally

Whilst there is no public fishing in our catchment area, there are still opportunities for those interested in fishing to have a go.

There are three main local angling syndicates with fishing rights on certain stretches of our waters: Millom & District Angling Association (Millom Anglers), Pennyparrock Anglers or Ulpha Anglers. Millom Anglers sells day tickets on its website.

The landowner of Seathwaite Tarn allows anglers to fly fish on that water in return for a £10 donation per day to the Duddon & Furness Mountain Rescue collection box held at the Newfield Inn in Seathwaite.

In addition, you will need to obtain a rod license from the Environment Agency (tel: 0344 800 5386) or online (www.gov.uk/fishing-licences) and observe regulations such as close seasons.

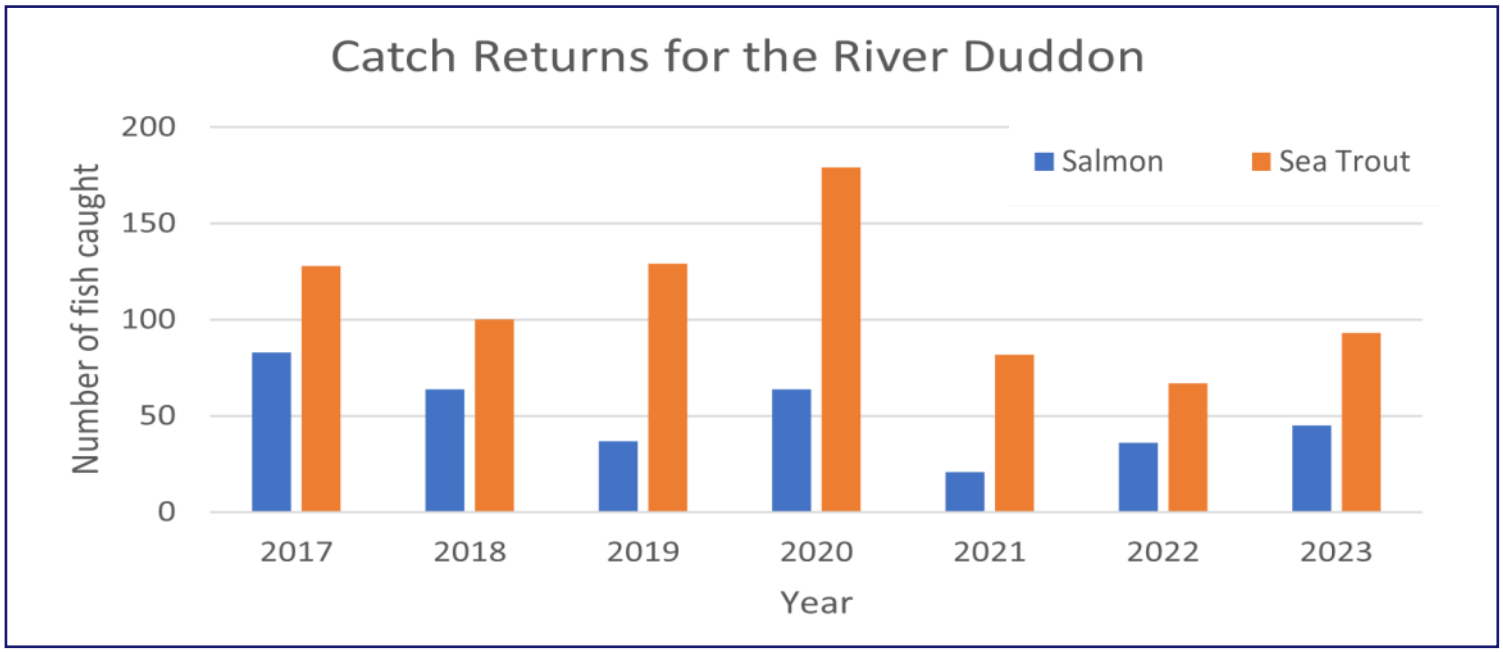
Lastly, please do take care if you are ever by the water's edge. Our lakes and rivers can be dangerous places, especially when in spate, and fishing is always at your own risk.

A final thought

Spending lots of time by our rivers while fishing always feels like a real privilege. A chance to escape from the pressures of modern life and to be part of nature. When people ask me what I think about when I am fishing, I always tell them the truth, which is that I think about nothing other than delivering my next cast in the perfect spot to induce a 'take'. After 40 years of fishing in the Duddon valley, I still get in trouble for arriving home late for meals because I have become so engrossed in trying to deliver that final, perfect cast….

About the author:

James Pennefather has been fishing in the River Duddon and local becks since he was a small boy. He also enjoys birdwatching and nature conservation.



Above: Bar chart and table showing data from catch returns for the Duddon. Below: Table of catch return data including the percentage of caught fish released (https://www.gov.uk/government/collections/salmonid-and-freshwater-fisheries-statistics-reports-and-supplementary-data-tables)

	SALMON			SEA TROUT		
Year	**Caught**	**Released**	**% released**	**Caught**	**Released**	**% released**
2017	83	74	89%	128	100	78%
2018	64	58	91%	100	86	86%
2019	37	34	92%	129	115	89%
2020	64	59	92%	179	161	90%
2021	21	20	95%	82	72	88%
2022	36	33	92%	67	64	96%
2023	45	43	96%	93	86	92%
Average	**50**	**46**	**92%**	**111**	**98**	**88%**

Above: Small pearl-bordered fritillaries

Duddon invertebrate highlights of 2024

By Chris Arthur

By all accounts, 2024 was a pretty poor year for invertebrates across the UK, with a cold, wet spring which transitioned seamlessly into a cold, wet summer. Cumbria fared no better, but nonetheless there were plenty of interesting things to see.

Identifying invertebrates is very much a work in progress for me and these are mostly incidental sightings, so there will unquestionably be more notable things to be found. As you'll see, so far I've mostly been looking at the hymenoptera and lepidoptera and I'm afraid quite a few observations are from within my garden. Despite this, I hope you will find this an interesting compilation of sightings from across last year.

The IUCN (International Union for Conservation of Nature) estimates that over 95% of described animal species worldwide are invertebrates. However, although invertebrates are often easily overlooked and can be very tough to identify, they are fundamental to healthy ecosystems; aerating the soil, decomposing and cleaning the environment (including water), pollinating, providing a source of food, eating 'pests' and maintaining the eco-system balance.

Butterflies

Butterflies reportedly had the worst year on record nationally which led to Butterfly Conservation calling for action and declaring a 'Butterfly Emergency'. Numbers of common species certainly seemed to be struggling but thankfully did improve slightly in late summer.

In the woods over the road from our house I found two species I haven't seen there before. The Hardknott Forest team have found **small pearl bordered fritillary** (*Boleria selene*) butterflies over the last few years but I haven't seen them south of Nettleslack before. Last year I saw several on the woodland edge above Common Wood further down the valley - hard to say if they're spreading from Hardknott or if I just haven't noticed them there previously.

More surprising was finding **dingy skippers** (*Erynnis tages*) amongst the mine spoil, also in Common Wood. I don't believe these have been found in the valley before but I'm happy to be corrected. Both of these species are listed on Section 41 of the Natural Environment and Rural Communities Act as 'species of principle importance for nature conservation', due to significant declines nationally in the recent decades.

Above: Dingy skipper

I didn't manage to find any **green hairstreaks** (*Callophrys rubi*) at Nettleslack this year, but I did see several flitting around the road whist cycling up Corney Fell (I'm sure it's caused lots of headaches but I've been very much enjoying the closed road with only sheep to contend with).

Moths

I had numerous nights of moth trapping, but the most notable species I found in 2024 was a couple of **Frosted Green** (*Polyploca ridens*) in the garden in the spring; these are common in the South but much scarcer in Cumbria. We also had a migrant **hummingbird hawkmoth** (*Macroglossum stellatarum*) visit in the autumn, but it sadly evaded my limited photography skills.

The Hardknott Forest team ran an excellent moth trapping event over the summer which hopefully

they'll repeat in the future and I imagine generated a substantial species list. It's worth keeping an eye out for their upcoming events - see page 26 for details.

Beetles

Around the slate workings in Common Wood I spotted a nationally rare **staphylinid beetle** – *Platydracus fulvipes*. There's a handful of other records from Cumbria but, typically, not any from the Duddon valley.

Anyone who has walked through the valley woodlands in summer will likely have spotted iridescent blue beetles bumbling around. These are a type of **Dor Beetle** (i.e. that feeds on dung) called *Anoplotrupes stercorosus*. Sadly species such as this are hugely susceptible to eating faeces from dogs treated with broad-spectrum veterinary treatments for worms, fleas, etc. There have been several articles in the press about the effects these can have on freshwater environments, but the implications of terrestrial ecosystems can be just as significant. It's definitely worth thinking about whether these treatments are necessary for pets, and if you use them please make sure all dog mess is collected and pets are kept out of streams and ponds.

The catchily named **golden bloomed grey long-horn beetle** (*Agapanthia villosoviridescens*) was one of three **long-horn beetle** species (*Cerambycidae*) found around Ulpha, along with *Rhagium bifasciatum* and *R. mordax*.

Glossary

Hymenoptera - large order of insects including bees, wasps, ants and sawflies. They have transparent wings and females have a specialised organ for depositing eggs called an ovipositor, which in a small number of species is modified into a stinger.

Lepidoptera - order of insects which comprises butterflies and moths. They have four large scale-covered wings that have distinctive markings, and larvae that are caterpillars.

Parasites - an organism that lives in or on an organism of another species (the host) and benefits by deriving nutrients at the other's expense.

Kleptoparasites - species which habitually steals food from another species.

Parasitoids - an insect whose larvae live as parasites that eventually kill their hosts.

Above: Golden bloomed grey long-horn beetle (Agapanthia villosoviridescens)

Sawflies

The Hymenoptera is a vast order that includes bees, wasps, ants and **sawflies** (*Symphyta*). The sawflies are the oldest family of the order and are characterised by the 'saws' of the females which are used to slide open vegetation in which to lay their eggs. Sawflies lack the 'wasp waist' of other members of the Hymenoptera and are comparatively poorly studied (and often really tricky to identify!). Many species have close associations with particular plant species in which they lay their eggs, for example ***Abia nitens***, below, lays eggs in devil's bit scabious (*Succisa pratensis*) plants.

Above: Abia nitens – a sawfly

Wasps and bees

Next came the wasps which evolved to become predatory to feed their carnivorous larvae, but still feed on nectar in their adult stages (and still provide vital pollinator services). Wasps is an incredibly broad term which covers everything from the social wasps we're all familiar with, to solitary species, including

Above: Andrena coitana

spider-hunting specialists, kleptoparasites and parasitoids. Finally the bees evolved and returned to a vegetarian lifestyle. I'll just pick out a few highlights from the many bees and wasps recorded in the valley in 2024.

In the meadows at High Wallabarrow I found a **small flecked mining bee**, *Andrena coitana* (pictured above). This is a nationally scarce and massively declined species that hasn't been seen in Cumbria for many years.

Alongside it was the specialist kleptoparisitic bee of this species, ***Nomada obtusifrons***. Kleptoparisitic bees have fascinating life cycles; they seek out the nest of the other species and lays their eggs in the cells that they have provisioned. The larvae then hatch and eat or otherwise dispatch the host larvae. *N. obtusifrons* has only been recorded in Cumbria once before, near Brampton in 1900 but it's almost certainly massively under recorded.

Above: Nomada obtusifrons

Possibly the most notable species I saw in 2024 is another of the solitary bees, the **wall mason bee** (*Osmia parietina*) which was found basking in my garden in May. This is nationally rare and confined to

Above: Wall mason bee

North West Britain. In Cumbria it's been found in a handful of places but not previously in the Duddon. Despite my efforts I didn't find any others this year.

Throughout the valley at the end of summer were **field digger wasps** (*Mellinus arvensis*) – on sunny late summer days the bracken around the field edges at Wallabarrow and the ivy along the road outside our house were teeming with them.

Above: Field digger wasp with prey

In the garden I saw several ***Sapyga quinquepunctata*** **wasps** sniffing around the **Red Mason Bee** (*Osmia bicornis*) nests in the walls. These wasps are kleptoparasites of other hymenoptera and have very few records in Cumbria. Occupying the same niche were **Ruby-Tailed Wasps** (*Chrysisoidea*) which look

Below: Ruby-tailed wasp

otherworldly and are often very hard to identify to species level.

Towards the end of the year in October I saw a single male **European Hornet** (*Vespa crabro*) nectaring on ivy. Hornets have historically been very much a southern species but they are gradually spreading northwards. There are only four other records from the county with the nearest being Hay Bridge or Roudsea to the east. Time will tell if a queen also made it over to start a new colony.

Above: Hornet

I've made a concerted effort to learn about **Ichneumonidae wasps** this year. These are notoriously hard to identify and consequentially hugely under-recorded but their life cycles are fascinating. These solitary species are parasitoids of invertebrates from numerous families which lay their eggs into their larvae and use them as a living larder. They are sometime colloquially known as Darwin wasps due to his apparent dismay at their lifestyle and conclusion that no beneficent god would permit their existence. Many of the species I've found have seemingly never been recorded in Cumbria but this is in no way a true reflection of their distribution. If any readers of this article run moth traps, you will likely have had occasional Ichnuemonids turn up – probably the orange-bodied Ophion or Netellia species. I'd be grateful to receive any specimens that people collect in future.

Dragonflies and damselflies

In 2024 I wrote about dragonflies and damselflies in the Duddon for the Restoring Hardknott Forest Blog

Therion circumflexion – an ichneumonid wasp

(Duddon Dragonflies and Damselflies | Biosphere Atmosphere Group) so I won't repeat that here, but it would be remiss not to mention that **white-faced darters** (*Leucorrhinia dubia*) have been seen in the Duddon Mosses (not by me sadly!) In both 2023 and 2024 individual males were spotted on several occasions. The nearest known population is that at Foulshaw Moss, roughly 22km away, though there are historical breeding records around Grizedale / Claife Heights. It is unclear whether the individuals at Duddon Mosses are dispersing from Foulshaw, or if there is an undiscovered population nearby, but either way it gives hope that the species might someday breed in the valley.

Recording sightings

Anything I find gets recorded on an app called iRecord which enables verification of records by experts. The records then get sent to the local Biological Records Centre (Cumbria Biodiversity Data Centre for us) and is available to recording schemes which can help direct conservation efforts and monitoring of national trends. Records can also be looked at on the website and filtered by area or species to show distributions. There are other apps, such as iNaturalist, which are similar but can be more problematic in sharing records with the right people. Both apps have an AI identification feature which can be useful, but is in no way infallible so cannot be relied on! The National Biodiversity Network (NBN) Atlas is another useful resource for looking at distributions of species.

About the author: *Chris Arthur lives in the Duddon Valley and has worked as a professional ecologist for over 12 years, currently providing ecological advice to a site in West Cumbria and providing consultancy services as Duddon Ecology. He has an interest in most aspects of ecology and is a firm believer in the value of biological recording.*

AHDB Publication 'Principles of Healthy Soils'

Soil health

By Rebecca Thomas (Catchment Sensitive Farming, Natural England)

At the recent DRA AGM I spoke about one element of my work in the South West Lakes being to provide advice on and promote healthy soils. To that end this article outlines the principles of healthy soils and how they are achieved.

Healthy soils are the cornerstone of productive agriculture, resilient ecosystems, and a stable climate. Soil health refers to the continued capacity of soil to function as a living ecosystem that sustains plants, animals and humans. A healthy soil supports crop productivity, holds water efficiently and resists erosion and disease. Understanding and applying the core principles of soil health can improve long-term agricultural sustainability and environmental health. Building and maintaining healthy soils is a dynamic process that requires observation, adaptation and commitment.

Although soils and management practices vary from farm-to-farm and field-to-field, there are some general principles that underpin all farming systems that have healthy soils. These aim to keep these chemical, physical and biological properties in balance. By applying the principles of minimising disturbance, maintaining soil cover, keeping living roots, promoting biodiversity and adding organic matter, farmers and land stewards can cultivate soils that are productive, sustainable, and beneficial to the environment. Healthy soils don't just grow crops - they sustain life.

The Principles of Healthy Soils: Building the Foundation for Sustainable Agriculture

1. Minimise soil disturbance

One of the most critical principles is reducing physical, chemical and biological disturbance. Excessive tillage, heavy machinery use and overuse of chemical inputs can degrade soil structure and organic matter. Minimising disturbance helps preserve soil aggregates, prevent compaction, and protect the complex web of organisms that inhabit the soil. Conservation tillage, no -till farming and precision application of fertilisers and pesticides all contribute to healthier soils.

2. Maximise soil cover

Keeping the soil covered is essential to prevent erosion, suppress weeds and moderate soil temperatures. Bare soil is vulnerable to wind and water erosion, which can deplete valuable topsoil and nutrients. Cover crops, mulching and crop residues provide continuous protection and contribute organic

matter to the soil. They also offer food and habitat for beneficial soil organisms.

3. Maintain living roots year-round

Living roots continuously feed soil microbes, which are critical for nutrient cycling and soil structure. Perennial plants or cover crops ensure that soil biology stays active even outside of the main growing season. These roots exude compounds that feed bacteria and fungi, promote the formation of soil aggregates and help bind soil particles together, improving water retention and resistance to compaction.

4. Promote biodiversity

A diverse ecosystem above and below ground enhances resilience and nutrient availability. Crop rotation, intercropping, and using a variety of cover crops foster microbial diversity and break pest and disease cycles. Diverse soil life - including bacteria, fungi, nematodes and earthworms - plays unique roles in decomposing organic matter, cycling nutrients and improving plant health. A biologically rich soil system is better equipped to withstand stresses like drought and disease.

5. Add organic matter

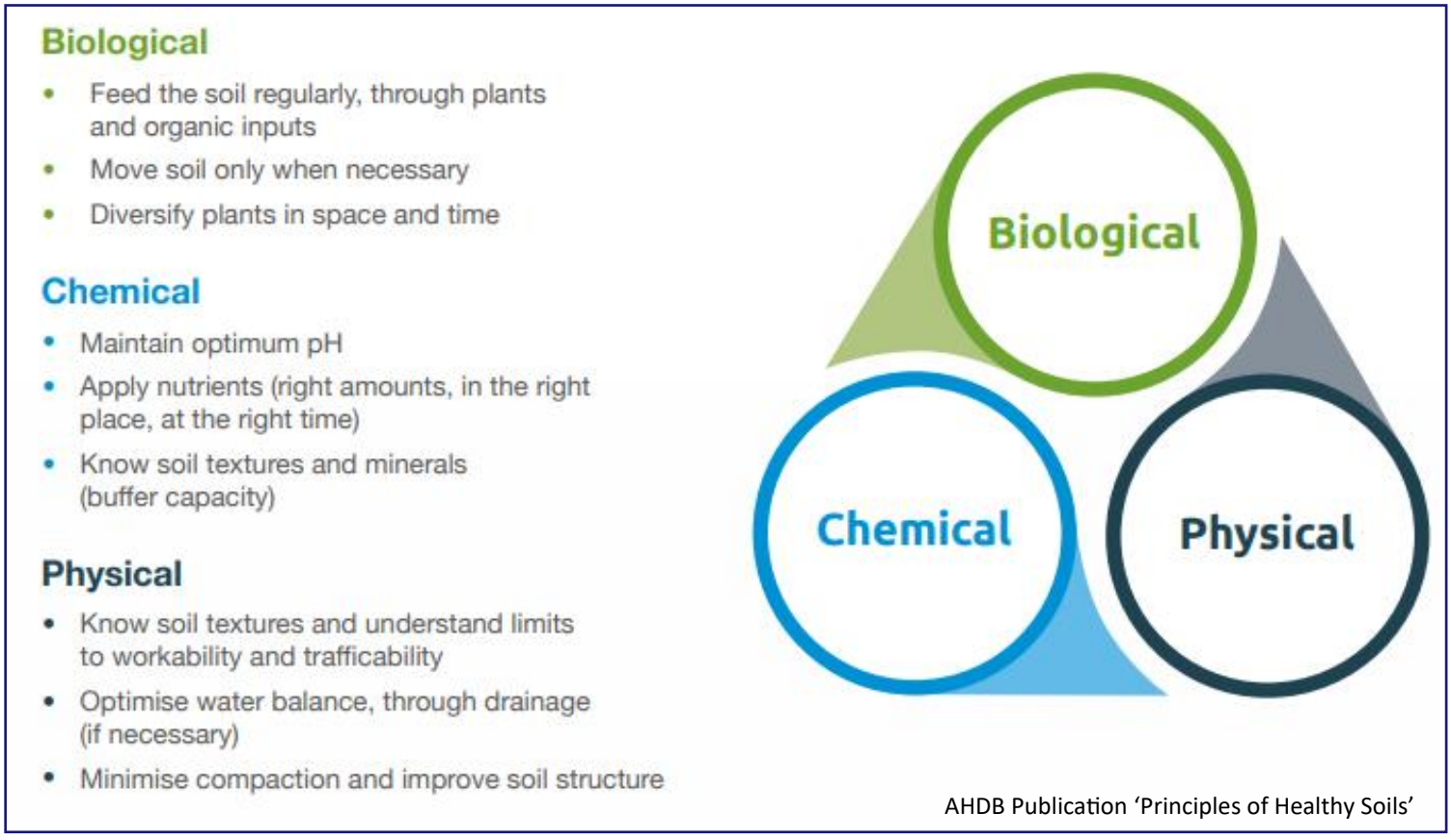
Organic matter is the fuel of soil life. Compost, manure and decomposed plant residues build soil carbon,

Above: an example of well-structured grassland topsoils.

improve nutrient availability and enhance the soil's water-holding capacity. Soils rich in organic matter are more resilient, fertile and better at sequestering (or capturing) carbon - an important aspect in mitigating climate change.

About the author: *Rebecca Thomas has been working for Catchment Sensitive Farming with Natural England for the past three years with an additional specific focus on Natural Flood Management. Prior to that she completed a Masters in Environmental Management at Lancaster University having spent several previous years advising on safety and environmental issues associated with nuclear legacy waste.*

Figure 1: Keeping chemical, physical and biological properties in balance



Above: View of the western area, from the moorland, looking towards trees planted in 2018-2020

Breeding bird survey: upper Lickle valley

By Celia Caulcott & Joshua Caulcott-Cooper

The River Lickle flows from Caw Moss at the foot of White Pike through Broughton Mills and enters the Duddon River just below the Duddon Bridge on the A595. It is a major tributary of the Duddon and as such is of interest in a variety of ways to the Duddon River Association. One aspect is our wish to understand the biodiversity of the Duddon catchment, both flora and fauna.

In May last year, South Lakes Ecology undertook a breeding bird survey on our land in the upper Lickle valley. This was done at the suggestion of the Woodland Trust, with whom we have been working since 2017 to increase the diversity of woodland and scrub on our land through planting of a variety of native trees.

The purpose of the survey was to provide baseline data, which will be used in the future to consider the impact of interventions on the land, in particular woodland development. Three field surveys were undertaken in the early morning across May and June, following a consistent route across the land. In addition, two Audiomoth audio-logger devices were installed for the full period of the survey. The data gathered were analysed to identify species that were breeding within the site.

The survey found that across the total site, there were 37 species of bird that were probably or definitely breeding in the area. Seven of these are on the BTO red list: cuckoo, mistle thrush, pied flycatcher, grey wagtail, tree pipit, lesser redpoll and linnet. There were a further seven species that were possibly breeding on the land, including two on the red list: song thrush and spotted flycatcher.

Overall, the survey found a significant number and variety of birds that are scrub specialists, reflecting the impact of the woods that have been planted in recent years in the western sections of the land. However, it was noted that birds that were typical of mature woodland were surprisingly scarce. This may reflect

Below: Eastern woodland, in the valley bottom close to the river Lickle. Fewer woodland specialist birds were observed here than might have been expected.

the nature of the established eastern woodlands, which are lacking in species, age and structural diversity, leading to negative habitat outcomes such as few natural tree holes. This is possibly due to the historic uses of the woods, which were generally planted for productive purposes (oak for construction, alder for charcoal, etc).

Our attention, having been primarily on the western area until now, is turning to what can be done to improve biodiversity in the eastern woodlands. Through a variety of active management approaches, including coppicing, stock exclusion and/or management, deer management and tree planting, we intend to increase its diversity. This will create improvements in habitat condition and ecosystem complexity across our land, positively affecting environmental resilience and natural services and processes within the Duddon catchment.

We have been encouraged by the findings of this survey, and intend to repeat it in a few years. We hope that this will demonstrate the continued positive impact of our work.

With thanks to the Woodland Trust for funding and South Lakes Ecology for the study.

For further information, please contact either Josh (jscc@cplusc.co.uk) or Celia (cac@cplusc.co.uk).

About the authors:

Celia Caulcott lives in the upper Lickle valley, in the farmhouse owned by her family for over 60 years, where she and her family now have land. Most of her working life has involved building partnerships to help take research findings from universities into application by industry and society, particularly in health, farming and food. She has been passionate about the Lake District, and the Lickle valley, since childhood and is delighted to be living here full time. In theory retired, she spends much of her time focused on balancing the use of their land between nature recovery, woodland and farming, and engaging with wider activities in the Lake District.

Joshua Caulcott-Cooper is the Geomorphology and Woodland Officer for the Wyre Rivers Trust. He recently complete a Masters in River Environments at the University of Birmingham, and previously spent five years working in onsite conservation across Cumbria.

Sustainable Duddon update

By Shelley Hackett

MoRPh training course

At the end of March we held a second MoRPh citizen science training course. This free one-day course provided an introduction to understanding river geology, why river forms and functions matter to wildlife, water quality and people, and how to record survey information.

We also took the opportunity to share our river quality monitoring equipment, which has just been purchased with grant funding for the Duddon Catchment Partnership, with the course participants.

We hope to organise an information meeting for those who attended both courses in the near future as we start to carry out these surveys across the catchment to capture important data about our river habitats.

Litter picking

Sustainable Duddon arrange regular litter picks around the area, and have recently covered an area around Hawthwaite, between High Cross and Duddon Bridge and an area around The Green and The Hill. There is sadly a large amount of litter about, which as well as being unsightly is also hazardous to wildlife.

If you would like to join one of our litter picks or have spotted an area that you think we should work on, please do get in touch with us via email (sustainableduddon@gmail.com) or follow us on Facebook.

Below: litter collected at a recent Sustainable Duddon litter picking volunteer session.

Restoring Hardknott Forest spring update

By John Hodgson

Monitoring season is underway at Hardknott Forest, and the weather has allowed Site Officers, John and Jess, to start gathering data on adders, breeding birds, butterflies and for the first time this year, bats.

As usual, adders are only seen when we're not actively monitoring them (how do they know?), but regular sightings at other times are encouraging for a species in serious decline around much of the country. We're slightly altering our monitoring methodology this year after advice from a local adder expert that the artificial reptile refugia (bitumen tiles) we've been using are not often used by adders in upland areas. The picture (below) shows an adder which one of our colleagues from the new Nature Rich Miterdale project (Nature Rich Miterdale) rescued from the road between Hardknott and their site in the next valley. We think it couldn't decide which of the two sites it preferred.

Another change this year is to add some more bird surveys transects (standard monitoring walks) to the Upper Duddon Landscape Recovery (UDLR) project area to get some baseline data before work begins on the ground. UDLR staff and partners are currently sorting out the last bits of paperwork, and we'll be ready to start the real work soon. Exciting plans have been made for peat restoration, wood pasture creation and (with the help South Cumbria Rivers Trust) river renaturalisation. We will include an update in the next DRA newsletter. The UDLR website is here (Upper Duddon Landscape Recovery).

After installing a few dozen bat boxes last year, they are now part of our annual monitoring program, working alongside our local Forestry England wildlife

Above: Schools' programme activity at Hardknott Forest

ranger. It's great that some boxes are already occupied, as they are not necessarily colonised straight away. Possible common pipistrelles and long eared bats were spotted this time, using our top-notch thermal scope. It will be interesting to go back with bat detectors to try and confirm species, but at the moment we're just happy to see some of the boxes being used. Take a look at this film (sound ON!) (Restoring Hardknott Forest: Bats in Great Wood) of bats out hunting at Hardknott last spring.

Our schools programme continues, and we've just started a block of 12 sessions with groups from Millom School. So far, we've planted wildflowers and trees, set up a camera trap and practiced a bit of tree ID. We're trialling another new type of biodegradable tree tube (Rainbow Terra) and I told the group from Millom School that these particular tubes were made from the skin of zombies, but apparently it's British-sourced wood residue and plant resins. (They didn't believe me anyway.)

We add a few different events to our regular volunteering days at this time of year. Last week we had a dawn chorus walk, where the 10 participants were treated to the calls of various migrant species such as pied flycatchers and grasshopper warblers - but possibly the most excitement was reserved for a sighting of our smallest bird of prey - the merlin. We also have some dry-stone walling dates and another wildlife walk coming up - check out our events page (Volunteering & events) for details and to book. We were also happy to host a visit from the Cumbria Lichens and Bryophytes Group who were able to ID approximately 80 lichen species and wrote up their day here (Hardknott lichen report 26 April 2025 – Cumbria Lichens and Bryophytes).

Tree planting

By Rick Browne

Our tree planting team held a couple of volunteer sessions in March working on a site just north of Duddon Hall.

The first session saw the creation of a riparian strip along a beck which runs into the River Duddon. Under the guidance of Shelley, our team of volunteers first lifted 350 trees from temporary beds at the Ulpha Community Garden. The trees were a mix of native species including rowan, alder, hawthorn, hazel and birch.

The trees were then transported to the site and planted in a fenced-off area. Once established they will prevent cattle poaching, create shade over the beck and provide important habitat and food sources for wildlife.

The second session saw a 120 metre strip of mixed hedgerow planted. This included wildlife friendly species providing nuts, berries and crab apples to improve the habitat for wildlife.

Additionally, our tree planting volunteers helped plant, stake and tube hundreds of whips at South Cumbria Rivers Trust's large scale planting project adjacent to Pennington Reservoir where the DRA joined volunteers from Barrow Angling Association.

A huge thank you to all our tree planting volunteers who helped with these sessions.

Our tree planting will resume in the autumn, so please get in touch if you'd like to volunteer!

Above left: Planting a riparian strip. Above right: planting mixed hedgerow. Below: Large scale planting near Pennington Reservoir.

Above: Stonestar Fells, site of the planned planting

Memorial planting on Stonestar Fell

We are delighted to be planting trees on the Stonestar Fell in Memory of Wendy Hardon. This will be funded by money donated by Wendy's family and friends.

A mix of native trees will be planted along side the Ulpha Road between High Whinery and St John's Quarry. This will be a visible reminder to remember Wendy by when driving up and down the valley.

Rick Browne, DRA Chair, says, "On behalf of the Duddon River Association, I'd like to thank Stephen Gardner, one of our DRA members, and his family for the very generous donation that was given to us in memory of Wendy. These funds are being used to improve habitat on the fells overlooking the River Duddon and will commemorate Wendy's life and her passions."

The trees will be planted in the autumn of this year, and we hope many of our DRA members will join us to help with the planting.

Fish refuges on Logan Beck

By Hannah Teagle (SCRT)

As part of the ongoing work by the Duddon Catchment Partnership, a series of fish refuges have recently been installed along Logan Beck.

While the watercourse already supports some natural habitat, the downstream stretch was identified as lacking suitable refuge areas for fish. This improvement project was also informed by the results of an electrofishing survey carried out in 2024. The survey revealed a healthy population of eels but highlighted poor populations of salmonids (salmon and trout). As a result, it is hoped that the fish refuges will aid in increasing salmonid populations.

Fallen trees and woody debris are essential components of a thriving river ecosystem, offering both shelter and spawning areas for fish. This natural process was replicated in the works. By carefully levering or felling trees along the riverbanks and securing them in place within the beck, the project team was able to create overhanging structures that encourage the formation of diverse habitats like pools and riffles.

These features provide crucial shelter from predators and serve as feeding and spawning grounds. They also help shape the riverbed by creating localised scour zones, forming deeper pools suitable for adult fish. The increased flow velocity around the structures leads to the development of cleaner, sorted gravels - ideal

conditions for fish to spawn. In addition to benefiting fish, these new features also enhance the habitat for invertebrates, birds, and other wildlife, contributing to a richer and more resilient ecosystem throughout Logan Beck.

Above: Creation of fish refuges in the Logan Beck

A bold new logo for the DRA

We were thrilled to reveal our very first DRA logo at the March AGM. The logo has been developed for us by Michael at CGP and we'd like to say a huge thank you for all the time and energy he put into creating this for us. We love it!

The logo symbolically represents some of our catchment's fells, from left to right: Harter Fell, Grey Friar, Dow Crag and Caw.

All our marketing materials and social media accounts have been updated with the design, giving cohesion to and increasing the impact of our marketing.

Thwaites Gala - Saturday 7th June

We are delighted to be attending the Thwaites Gala again this year and will once again have a stand in the Green Matters area.

This year, the Green Matters area will include Sustainable Duddon, South Lakes Red Squirrel Group, Millom Marsh Project, the Furness Beekeepers and a swill basket demonstration, as well as the DRA. We hope to see you there!

Thwaites Village Hall

Gala

7th June

1 - 4 pm

A Great Family Fun Day Out
With a special theme to mark the 80th anniversary of VE Day

Raffle, Tombola, Bouncy Castle, Food and Drink, Children's Games, Live Music, Fancy Dress Competition, Dance Performances and much more

Admission £5 per person, £15 family ticket (up to 6), under 5's free. Bouncy castle and lots of children's fun activities included within admission price

We're hoping **to offer a FREE BUS** service between Millom Square, The Hill and Thwaites Village Hall. Please look out for details nearer the time.


Pam Pennefather

Sandscale Haws guided walk

All are welcome to join us for our annual social event, a guided walk around the National Trust's Sandscale Haws National Nature Reserve. This is an outstanding dune habitat supporting a wealth of wildlife, as well as having stunning views of the Duddon estuary and the fells beyond.

Time: **10.30am - 12.30pm, followed by a picnic**
Date: **Tuesday, 22nd July, 2025**
Place: **Sandscale Haws, Roanhead, LA14 4QJ**
What3Words:inclines.spoils.inspector

The guided walk will be conducted by Darren Mason, a Senior Reserve Manager (SRM) for South Cumbria with Natural England who previously held the role of SRM at Sandscale Haws with the National Trust, so is highly knowledgeable about this site.

After meeting in the car park at 10.30am, we will be taken on a walking tour lasting approximately two hours, as Darren talks to us about the importance of the habitat and the flora and fauna it supports. July is the best month for catching the dune plants and hopefully we might even see some natterjack toadlets! The tour will be followed with a BYO picnic (weather permitting!)

A few logistics: Well behaved dogs are welcome, but please bring a lead. Please car share where possible as the car park is small. Suitable clothing, hat, sunscreen and water bottle recommended. Please be aware of ticks and the possibility of bee/wasp stings.

Please email duddonriverassociation@gmail.com to confirm your attendance.

DIARY DATES

JUNE

Sat 7th	**1 - 4pm**	**Thwaites Gala** Please pop over to the DRA stand and say hello!
Wed 11th 18th & 25th	**10am - 3.00pm**	**FBA Mussel Tagging Days** Details as communicated to registered participants.
Tues 17th	**10.00am**	**Leaky Dam Building with SCRT** Volunteers are needed to help. Location: nr Duddon Hall.

JULY

Tues 22nd	**10.30am**	**DRA Guided Walk at Sandscale Haws Nature Reserve.** (See opposite).

AUGUST

Sat 30th	**all day**	**Broughton & Millom Show** Can you volunteer to help on our stand for a couple of hours?

Restoring Hardknott Forest events

Wildlife events and volunteer days are run regularly at Hardknott Forest. Booking and more information can be found here or by scanning the QR code.

SCRT events

SCRT conduct many activities in our catchment including tree planting, leaky dam building, electrofishing and riverfly surveys and training days.

Register as a SCRT volunteer using 'Better Impact' by clicking here or see the SCRT website for event details: www.scrt.co.uk/events

Duddon River Association contact details

Chair: Rick Browne
Secretary: Steve Benn
Social Media & Newsletter: Pam Pennefather

Email: duddonriverassociation@gmail.com
Instagram: @duddonriverassociation
Facebook: duddonriverassociation
Facebook Group: www.facebook.com/groups/duddonriverassociation

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