Duddon River Association Newsletter **Duddon Dispatches**

Improving the natural habitat of the River Duddon and its tributaries for the benefit of all wildlife



t's been a busy six months since our last newsletter and as the winter months bring a pause to many of our activities, we can reflect on a highly productive summer and plan for the coming year.

Our main focus has been Himalayan balsam control. Following the innovation of using WhatsApp to communicate with volunteers, we had a very busy, time consuming and successful four months as we cleared a record number of balsam plants. This was thanks to the biggest volunteer push we've ever had more details in our report on page two. On the subject of invasive species, we also cleared a few Japanese Knotweed saplings and several skunk cabbage plants.

Electrofishing and riverfly surveys have also been undertaken throughout the summer months, as part of the ongoing monitoring of river health. Thanks go to all those who have been involved with these.

There have been several sightings of otters on the river and a few reports of mink. As part of our involvement in the Duddon Catchment Project, we have six mink rafts sited to help identify where mink reside and you can read more about this on page 14.

Another activity in which many members are actively involved, also as part of the Catchment Project, is controlling grey squirrels. This is most effectively done between February and July. Almost 200 squirrels have been accounted for in our catchment so far this year. We are extremely fortunate to still have a few red squirrels in our area which is thanks to the efforts of a few dedicated volunteers over the past 20 years.

We have also just taken delivery of four wildlife trail cameras which we will soon have sited along the river.

Generally, it has been a cold wet summer with many flood days on the river. One day in August was so bad that the Ulpha road by Duddon Bridge was blocked by flooding for five hours around high tide time. This is normally a winter event! Exceptional flooding seems to be happening more often these days, which underlines the importance of trying to slow the flow of water upstream, with initiatives such as peat bog restoration, leaky dams and tree planting.

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The biggest bashing season ever!

By Rick Browne

his summer has been quite a rollercoaster as we continue to tackle the non-native invasive species, Himalayan balsam. On one hand we have seen the remarkable impact of our many volunteers, whilst on the other, it has been frustrating (and a little overwhelming) to discover several large new areas of infestation.

Introducing a new way of working has been instrumental in increasing our effectiveness. At our AGM, we agreed to set up a WhatsApp group to coordinate balsam bashing work sessions. Over 30 volunteers initially signed up for this work, and more have joined over the season. With 45 volunteers in total balsam bashing across the summer, this is a remarkable achievement!

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On the social side we had a very interesting and enjoyable trip to the Freshwater Biological Association site on Windermere to learn about freshwater pearl mussels - see on page four - and next year, we may well be surveying the river Duddon for this red listed, critically endangered species.

I hope we can maintain the momentum and enthusiasm of everyone involved into 2025.

As always, you can get in touch with us by emailing **duddonriverassociation@gmail.com**, and keep up to date with all our activities via Instagram, our Facebook page and our Facebook group.

Best wishes, Rick Browne (DRA Chair)

Above: A volunteer balsam bashing party at Buckman Bottom, ready to remove the large stand of balsam in the background.

Volunteer sessions were usually arranged for weekend mornings, for two to three hours at a time. Many folk put in additional hours at their own convenient times too. Some did one or two sessions, others more than 12, and some brought family and friends to join in. To compare results with the past two years we all tried to keep count of the approximate numbers of plants pulled out.





These images show Buckman Bottom, a badly infested, new area we tackled this year. A dense stand of balsam ran all the way along the edge of the beck and balsam spilled out across the field. Above left shows before the work started, above right shows the cleared field edge, and below, work in progress.



2024 Balsam Bashing Fact File

- 190k balsam bashed
- 310 volunteer hours
- 2.3 times as many plants destroyed versus last year
- 15 organised volunteer sessions
- 45 volunteers bashed during the season
- 8 of our volunteers were children
- 11 volunteers attended four or more bashes
- Largest volunteer session included 16 people
- Biggest bash on one day destroyed over 27k plants

Last year we included some new areas, and this year we expanded to even more; two of these were extremely heavily infested with many thousands of plants. Although we managed to destroy a huge amount, there were too many for us to destroy them all before they went to seed and we will still have much to do in these areas next summer.

We estimate that we have clocked up 310 hours of volunteer time this year which is incredible. It has been a huge team effort with so many of our members turning out; our youngest volunteer was only four years old, our oldest in his 80s. Special thanks must be given to Jean, Elaine, John S, Adrianne, Mike, Steve and Gill who put in over 100 of these hours between them. My thanks go to everyone involved and I hope you can all turn out again next year!

The table opposite demonstrates just how much effort has been invested in balsam control and the success we are having. It is clear how much the numbers of plants pulled in a specific area have reduced each year. It is also clear how vital it is to continue to revisit every area late into September to catch all the late developing plants before they set seed. As the word spreads locally about our efforts we will identify more new areas for us to work on. I am optimistic that in another three years, if we can maintain this effort, we will have the catchment pretty well clear of balsam.

Area	2022	2023	2024
River Path	27,550	1,608	354
Ulpha Road end	850	87	23
Corney Fell Road	93	13	122
Lickle		11,018	536
Black Beck		690	218
Cockley Beck		40	196
Low Beckstones		20	3
Pumphouse		26,544	7,838
Underhill		38,510	14,547
Thwaites Hall		4,455	7,396
Hill Brow			30,933
Buckman Bottom			127,642
Wilson Park			181
Ulpha Bridge			3
TOTAL	28,493	82,985	189,992
year on year index	n/a	2.9	2.3

Above: Table showing the number of balsam bashed over the past three years by area. The cells shaded pink show the areas where the balsam was not completely cleared prior to seeding (which gives rise to a greater number of plants the following year). The Corney Fell Rd and Cockley Beck illustrates why destroying plants prior to seeding is absolutely crucial!

Thank you to all our amazing volunteers!

Rick, Gill & Sarah • Jean, Ari & Elidhi • Adrianne •
Steve • John S • Mike • Elaine • Jackie & Nick • Fiona & Gareth • Pam, James, Lizzie & Richard • Angela & Sten • David • Richard J • Celia & Neill • Catherine, Toby & Pippa • Zoe, Barney & Baxter • Nigel & Sally • John & Kyle • Jackie • Hayley • Ellis • Meg • Stephen • Peter • Steph • Lindsay • Selwyn • Keith • and anyone else we have inadvertently missed out. You were all amazing!

Below: DRA volunteers out bashing across the catchment, from left to right: Jean, Steve, Stephen and Dave.









Hidden gems: Freshwater pearl mussels

By Pam Pennefather

his summer, the DRA had the privilege of visiting the Freshwater Biological Association (FBA) at Windermere, to learn about one of the UK's most critical conservation efforts: the freshwater pearl mussel breeding programme. The day proved to be an eye-opening experience, as we were introduced to their fascinating lifecycle and the intensive work being undertaken by the FBA to save them from the brink of extinction.

For those who weren't able to join us, read on to find out what we learnt from our visit about these amazing freshwater invertebrates.

An important and critically endangered species

It would be fair to say that most of us arrived at the FBA facility knowing very little (if anything!) about freshwater pearl mussels (*Margaritifera* margaritifera). Ben King (FBA's Pearl Mussel Officer) and his colleague Jodie Warren (Pearl Mussel Assistant) soon changed that, delivering a comprehensive and engaging education on these incredible bivalve molluscs that were historically prized for the pearls they sometimes produced.

Freshwater pearl mussels, though small and inconspicuous, play an incredibly important role in the ecosystems they inhabit. They act as natural filters, helping to keep river systems clean by filtering out impurities as they feed on microscopic particles in the water. A single mussel can filter about 50 litres of water a day.

Native to the Holarctic region, they are found on both sides of the Atlantic, from the Arctic and temperate

regions of western Russia, through Europe to the northeastern part of the USA and eastern Canada, with

their populations extending as far south as Spain.

Despite their relatively widespread distribution they are threatened with extinction or are extremely vulnerable in all of their locations.

Once widespread across the UK, the freshwater pearl mussel is now critically endangered, with populations limited to a handful of clean rivers and streams which are fast flowing, highly oxygenated and low in calcium and other nutrients. These remaining populations are under severe threat from factors such as pollution, nutrient enrichment, riverbed damage, high sediment loads coming from land run-off and climate change leading to rising river temperatures. Although it is illegal to fish for pearls, and highly unlikely a pearl would be found in a mussel, sadly, fishing is also a threat to the species. The UK remains critical for conservation efforts, especially as Scotland has a

Below: DRA members' visit to the FBA's Lakeside facility in August





Above: Tanks containing salmonid fish and mature mussels

significant proportion of the world's breeding population found in its rivers.

Without significant intervention, the UK (and especially England and Wales) risks losing its freshwater pearl mussel population entirely, and with it a key contributor to the health of our rivers.

The lifecycle of the freshwater pearl mussel

We were fascinated to find out from Ben and Jodie, that their lifecycle begins with adult female mussels releasing tiny larvae, known as glochidia, which are about 80 microns (0.08mm) in size. These glochidia are released around July, having earlier been fertilised by sperm released into the water in May/June time by male mussels.

Once released, glochidia attach themselves to the gills of young fish by snapping themselves on, before developing as a parasitic cyst on their host, during which time the fish remains unharmed. Incredibly, the choice of fish depends on the genetic strain of the mussels, with mussels in a particular river having a preference for a particular species of fish, usually either salmon or trout.

After around nine months attached to their host, the glochidia drop off and settle in the riverbed as juvenile mussels. They require a coarse sand or gravel substrate, stabilised by larger cobbles and boulders, to enable them to grow and mature successfully into adult mussels.

Once in the riverbed, the mussels will burrow down, and when mature, use their large foot to anchor into the substrate. Here they can survive for over 100 years

in clean, fast-flowing rivers, growing up to about 17cm in length. They are completely sedentary and stay in one place during this time, although they can move, using their foot to propel them, if a change in their environment demands it.

This very unusual lifecycle includes an incredibly high mortality rate for glochidia. The vast majority of glochidia released (99.9%) don't find a fish upon which to attach themselves, and so die. Those that do successfully find a host fish then have to survive for many months there, during which time the fish may die and with it the glochidia too. Finally, if on releasing from the fish, the substrate of the river they settle on isn't suitable, or the river conditions are poor, the juvenile mussels will also not survive. By this stage only about 0.01% of the original glochidia will still be alive. They then have to spend the next ~ 12 years growing before reaching sexual maturity when they can themselves contribute to the population.

Whilst older mussel populations are present in some rivers (the youngest often being around 70 years old), juveniles are rare. This is because juveniles are most affected by poor habitat conditions, and breeding is rarely successful due to the lack of suitable fish hosts. Mussel populations are therefore aging and diminishing, unable to sustain themselves.

Importance of Cumbria

Whilst populations of freshwater pearl mussels are found in parts of Scotland and Northern Ireland, Cumbria is one of the last remaining viable locations in England for this species as it offers one of the few

Below: Freshwater Pearl Mussels in their natural river habitat





Above left: Large outdoor tank containing freshwater pearl mussels

suitable habitats. The region's clear, nutrient-poor, fast -flowing rivers, combined with stretches of relatively pristine riverbed, are crucial to the mussels' breeding and lifecycle, as well as the presence of sufficient quantities of salmonid fish. The unique relationship with salmon and trout makes conserving these two fish species equally important for the mussels' survival. Cumbrian rivers such as the Irt, Ehen, and Kent are home to some of the UK's remaining pearl mussels.

The freshwater pearl mussel breeding programme

Protecting this species from extinction requires a dual approach, with both restoration of habitat being crucial, as well as increasing their overall population size through captive breeding. Our visit to the FBA gave us insight into the incredible work being done to conserve these mussels through an ambitious breeding and reintroduction programme which was established in 2007.

The programme firstly created an 'ark' of brood stock mussels from various UK populations. It then breeds juvenile mussels in the facilities at FBA Windermere which have been adapted for this purpose. Development is closely monitored before the juvenile mussels are released back into the wild alongside existing populations in suitable areas.

We were able to view the tanks which act as the nursery for rearing the mussels. The systems use filtered lake water from Windermere making the siting of the facility a crucial element of the programme. Larger tanks containing young salmon or trout reproduce the correct environment for the release of glochidia and subsequent encystment on host fish. Once the juveniles drop off the fish they are collected in plankton nets and moved to the smaller heated



Above right: close up of freshwater pearl mussels in a tank

juvenile rearing tanks where they are fed with a commercially available algal solution and kept at a warmer temperature to encourage growth.

Mussel populations from different rivers are kept apart in separate tanks due to their genetic distinctions. Cohorts of mussels from specific years are kept together as they grow, progressing through different trays before ending up in an outdoor flume with a river substrate and cobbles, before they are large enough to be released into their native rivers.

Reintroduction into rivers

Over the past 17 years the project has seen continued success with juvenile production and retention, and is now learning about how they can be most successfully released. Mussels have been released into the River Irt since 2017, and in July this year, over 1,350 juvenile mussels were released into the River Irt and the River Ehen. This is done in collaboration with the West Cumbria Rivers Trust (WCRT) who importantly oversee the habitat restoration work to ensure the river

Below: tiny, juvenile freshwater pearl mussels



environments are improved before releasing the mussels.

The mussels being bred are all individually labelled with a number so they can be carefully monitored for research purposes. Additionally, before release, they are tagged with PIT (Passive Integrated Transponders) tags attached with Superglue and covered with dental cement to ensure they stay fixed in place. Because the juvenile mussels bury themselves into the riverbed and aren't able to be seen, the tags provide vital information when the riverbed is scanned at a later date with a PIT tag reader. This enables the released mussels to be monitored and release techniques to be researched to enable protocols to be developed.



Above: tagged freshwater pearl mussel

Future hopes

Captive breeding offers a lifeline to the freshwater pearl mussel whilst catchment restoration is taking place. The long-term goal of the programme is to establish self-sustaining populations in their native rivers; this will restore not only the species, but should improve the health of the river ecosystems as a whole.

Our visit to the FBA was a reminder of how fragile the river ecosystem is and the interdependency of species within it, and highlighted the threats posed by the degradation of our rivers. It also gave us great hope, demonstrating that with the right effort, we can make a real impact in protecting our rivers and their species for generations to come.

Supporting efforts to improve water quality, reduce pollution, and protect river habitats is critical not only for mussels but also for the biodiversity of our entire region. It is inspiring to see how WCRT and the FBA are working together and taking important steps toward restoring mussel populations in key Cumbrian rivers,

and that through collaboration and dedication, it is possible to reverse the fortunes of even the most endangered species.

With Cumbrian rivers supporting the only viable population of freshwater pearl mussels in England, we did ask: 'Could there be a small population of mussels in one of the DRA catchment rivers?' It is certainly a possibility, especially given our proximity to other rivers with known mussel populations. We are hoping that survey work might be undertaken to establish whether freshwater pearl mussels are present in our catchment. It would be incredibly exciting if this were the case and if we were therefore able to help support the FBA's extraordinary efforts to ensure that the freshwater pearl mussel remains a vital part of Cumbria's river ecosystems. It is yet another incentive to continue to protect and improve the rivers in our catchment.

About the author: Pam Pennefather is ever hopeful that one day she will be able to move to Cumbria full-time. In the meantime, she enjoys keeping up to date with all the amazing work of the DRA and our partner organisations by producing the newsletter and looking after the DRA's social media.

Find out more

If you'd like to learn more about these incredible invertebrates then here are some useful links:

- Discover more about the FBA: www.fba.org.uk
- If you are interested in citizen science volunteering opportunities at the FBA more details can be found at www.fba.org.uk/volunteer or you can email Ben King directly at BKing@fba.org.uk
- Watch the short video 'Restoring the River Irt
 Freshwater Mussel Population' on YouTube
 https://youtu.be/5dm15byeMag
- Watch the FBA's Head of Science, Dr Louise
 Lavictoire, present the webinar 'Restoration,
 Rearing & Reintroductions: Saving the
 Freshwater Pearl Mussel' www.youtube.com/
 watch?v=pXK6VAHZgGk
- Watch WCRT's film about Bankside Artificial Encystment, another way that freshwater pearl mussels are being helped to survive in the River Ehen, which has England's largest population www.youtube.com/watch?
 v=mS2XKc MVR4&t=15s



How to spot 100 bird species in a day in May in the Duddon Valley

By James Pennefather

or the past four years, I have dedicated a date in May as a 'Century Day' with a challenge to spot 100 different bird species in the valley in a day. It has been a really rewarding day each year, and I would recommend it to all DRA members. Here is a summary of what I have learned and some tips.

The original inspiration for Century Day came from a change in a local pub sign which made me wonder whether we might be in danger of losing our collective appreciation of the valley's biodiversity.

A few years ago, the pub sign above the Black Cock Inn in Broughton in Furness was replaced with a new one. Gone was a painting of a magnificent black grouse, an iconic species that had thrived in the valley until the 1960s. In its place the new owners had erected a picture of a domestic chicken.

It was a very visual reminder of the decline in the biodiversity of the valley that we are experiencing, and made me resolve to see whether this local species extinction was a one-off.

And so the idea for a Century Day was hatched. The challenge is to spot or - as usually happens in the case of the cuckoo - hear 100 different bird species in one day. I chose May because that is when the African migrants have arrived and the valley is full of wonderful birdsong. All you need to participate is a pair of binoculars, a passing ability to identify birds and most importantly a willingness to be out in nature from dawn to dusk.

The Duddon valley is a very special place for birdwatching. The valley is blessed with an amazing variety of different habitats, all of which can support a population of different bird species. In spring the number of species is swollen by migrants from sub-Saharan Africa who fly over to raise their broods here and benefit from our long daylight hours and plentiful insects. Did I mention that midge repellent is an essential item to pack for Century Day!

I tend to start the day in our temperate oak woodlands to listen to the dawn chorus. First up you will hear blackbird, robin and song thrush. Later the songs of the iconic African trio of redstart, wood warbler and pied flycatcher will become prominent in the soundscape. If you are lucky a tit flock - including long-tailed tits, nuthatch, treecreeper, lesser redpoll - will pass through the trees around you. Spend time in a young birch woodland to tick off willow warbler, chiffchaff and blackcap from the list, and visit a section of coniferous woodland to try to spot goldcrest and siskins.

From the woodland I walk down to the river where usually I can quickly spot a dipper, grey wagtail and heron. If I'm lucky a goosander too. And very lucky, the flash of a blue and orange kingfisher or the high-pitched alarm call of a common sandpiper. Though I must admit that I have not managed to see either of those last two on a Century Day itself. Infuriatingly, I tend to spot both of these the day after Century Day. That's just how it goes with wildlife.

While I'm walking between habitats, I'll keep scanning the wider environment to pick up some of the more common species - goldfinch, blackbird, robin, the tit species, etc - and in the skies above buzzard, jackdaw, swifts, swallows and house martins. That's the thing about Century Day: ticking off a common bird is worth



as much as a rarity. Last year I failed to see the dunnock, a very common bird. The year before, neither treecreeper nor mistle thrush. Such is the unpredictability of nature. Don't forget to check your bird feeders too: this year, 14 of the species I spotted including bullfinch, greenfinch, great-spotted woodpecker - were seen outside our kitchen window during breakfast and lunch breaks thanks to the popularity of the sunflower hearts that I have been providing in a bird feeder.

A trip to the RSPB's Hodbarrow Reserve is a must on Century Day. You can usually pick up a few additional bird species such as linnet, sedge warbler and lesser whitethroat in the scrubland around the old iron ore mines, a sand martin colony in the old sea wall, a pair of rock pipits on the new sea wall and curlew, redshank, dunlin and black-tailed godwits on the mud of the estuary itself. But it's in the RSPB hide where



you will strike gold, being greeted by a wall of noise from the colony of nesting birds on the rocky island in front of you: sandwich, common, little and - more recently - arctic terns, oystercatchers, black-headed gulls, great-crested grebes, eider duck, lapwing and others all competing for space on the gravel.

Occasionally a lesser black-backed gull, peregrine or raven will swoop down to try to grab a chick; the resulting screeching noise of the massed birds is extraordinary. In the lagoon there will be mute swans, red-breasted merganser and tufted duck. Look across the lagoon at the treeline and you'll see little egrets and cormorants on their nests. Keep your eyes out for winter species that have still not migrated: goldeneye, shelduck, perhaps even a teal. And don't forget to tick off the house sparrows and rock doves you will see around Port Haverigg's mobile homes.



No Duddon valley Century Day is complete without a walk onto the fells. Here you will be surrounded by the aerial songs of skylark and meadow pipit and chided by wheatear, stonechat and wrens as you walk along the paths through the bracken. Look upwards and you should spot soaring buzzard and hovering kestrel.

There is a healthy population of yellowhammers in our valley: scan the tops of granite boulders when you hear their distinctive "I'd like some bread and a little bit of cheese" song and you'll usually spot a resplendent yellow male. Go higher up the valley and you might be lucky enough to see a rare ring ouzel: look out for a blackbird with a white throat. I last saw a ring ouzel at the summit of Harter Fell, but given the amount of climbing it takes to get there, I have never felt I have had enough time on a Century Day to go searching for one.

As dusk arrives, you want to remain out in the field, because this is when you are most likely to spot a flighting common snipe or roding woodcock (Duddon Mosses are pretty reliable for these, 30 minutes after sunset), a barn owl hunting for voles, or perhaps hear a churring nightjar or reeling grasshopper warbler. Take a head torch for the walk home afterwards. And



did I mention how essential midge repellent is?

At about 10.30pm you will do your final tot up from the day. In my first year's Century Day in 2021, I managed to spot 78 species in a day. This year I increased this to 87. I know I would have to be extremely fortunate to get that score up to 100, but the list opposite shows that there are over 110 species in our catchment that could be seen during May, so it's not impossible.

Imagine what an endorsement of the valley's biodiversity it would be if one of us could one day achieve that century.



A few tips for a successful Century Day

- An ability to identify birdsong is a great help. In the
 weeks before Century Day I try to get my 'ear in'
 again by listening to birdsong on an app while
 driving. I'd recommend 'A Complete Guide to
 British Birds' by Brett Westwood and Stephen
 Moss which is available to download on Audible.
 Over the years this has alerted me to species that I
 would not otherwise have noticed: garden warbler,
 whitethroat, stock dove etc.
- 2. Do a bit of planning beforehand on which habitat you will visit and when. I spent a happy few hours one winter's evening on https://records.nbnatlas.org/ adding in grid references from the valley and seeing what species had been found there over the years, which helped direct where I should visit for some of the more elusive species.



- 3. It can be a bit distracting and time-consuming if you tick off each bird species as you go along. Instead, I go through the checklist below after each habitat visited and tick off the species I have seen. The list below is not exhaustive (we should still hold out for the return of black grouse to the valley!) and you will of course see birds listed under one habitat here in a different one when out and about. But after four years of Century Days, I reckon that this list below captures the vast majority of the species you are likely to see in the valley in May.
- 4. Don't worry if you are not outside by 5am: I find that a lot of the woodland species do not actually start singing until closer to 6am.
- 5. If it is pouring with rain, you should consider postponing the day: the dawn chorus in the rain is a complete washout and you will struggle to hit a decent total.

Good luck with your own Century Day if you decide to have a go and do let me know if you make it to 100 or if you see anything unusual!



About the author: James Pennefather (above, on a Century Day) has spent much of the past 40 years observing birds in Cumbria, and on his travels across India and Kenya. When not birdwatching he spends his time selling whisky.

Bird list by habitat

Here is James's useful checklist of the birds that you may see in the Duddon Valley with a keen eye, an open ear and some patience! Are there any missing that you have seen? If so, please let us know. Happy spotting!

	The Fells	Woodland	Wood/Fell margins	River	Estuary/ Hodbarrow
Exceptional	Dotterel Ring ouzel	Marsh tit	Nightjar		Osprey Spoonbill
Trophy species	Peregrine falcon Whinchat Stonechat Raven	Woodcock Tawny owl Redstart Pied flycatcher Wood warbler Bullfinch Lesser Redpoll	Common Snipe Cuckoo Barn owl Grasshopper warbler Spotted flycatcher Tree pipit	Kingfisher Common sandpi- per	Teal Shoveler Goldeneye Eider Gadwall Black-tailed godwit Arctic tern
Likely to see	Buzzard Kestrel Meadow pipit Skylark Wheatear Yellowhammer	Sparrowhawk Pheasant Wood pigeon Stock dove Great spotted wood- pecker Robin Song thrush Chiffchaff Willow warbler Goldcrest Long-tailed tit Blue tit Great tit Coal tit Nuthatch Treecreeper Jay Jackdaw Rook	Greylag goose Red-legged partridge Green woodpecker Swallow Swift House martin Pied wagtail Wren Dunnock Blackbird Mistle thrush Song thrush Whitethroat Lesser whitethroat Blackcap Garden warbler Siskin Linnet Reed bunting Carrion crow Chaffinch Greenfinch Goldfinch	Mallard Grey heron Dipper Grey wagtail Goosander Moorhen	Mute swan Canada Goose Shelduck Tufted duck Red-breasted merganser Little grebe Great-crested grebe Cormorant Little egret Coot Oystercatcher Ringed plover Lapwing Curlew Dunlin Redshank Black-headed gull Herring gull Lesser black-backed gull Greater black-backed gull Sandwich tern Common tern Little tern Rock dove Collared dove Sedge warbler Sand martin Rock pipit Starling House sparrow Magpie
Total (114)	12	27	30	8	37
Maybe one day!	Merlin Hen harrier Red grouse Black grouse Golden plover	Lesser spotted wood- pecker Crossbill Hawfinch	Grey partridge Yellow wagtail		Hobby



An introduction to CyberTracking by Nigel Sharma

n recent years I have become fascinated by CyberTracking. A walk through the countryside is always enriched when you see wildlife, but it is also enriched when you spot and understand the signs left behind by that wildlife: tracks, scat, signs of feeding, nesting, territorial marking, etc. Recognising these signs comes under the general heading of "Tracking".

Until relatively recently there was no internationally recognised standard in tracking, especially as these skills often tended to reside with indigenous peoples. In the early 1990s, a group of indigenous Kalahari San people in Southwest Africa spoke to a local man, Louis Leibenberg. They told him it was no longer viable for them to live as hunter-gatherers and asked if there was a way to utilise their native tracking skills to generate an income.

Louis Leibenberg subsequently came up with the idea that they could record the tracks and signs of animals they saw, and this information could be used in scientific surveys. However, any data collected for scientific research would need to be completely reliable, so he devised and instigated a system of testing and accreditation. Each of the newly qualified participating bushmen was given a Palm Pilot to record their findings. This became known as the CyberTracker System and CyberTracking was born.

Above: www.cybertracker.org homepage

The CyberTracker evaluations are split into two parts, each done separately: *Track & Sign* and *Trailing*. *Track & Sign* covers all the things mentioned above. *Trailing* is the ability to follow and find an animal from the signs they leave behind. There are five levels that can be attained in each discipline; I am currently at Level 2 in each, so I still have a long way to go!

From its origins with the Kalahari Bushmen,
CyberTracker projects have since been initiated to
monitor a wide range of wildlife: gorillas in the Congo,
snow leopards in the Himalayas, butterflies in
Switzerland, the Sumatran rhino in Borneo, jaguars in
Costa Rica, birds in the Amazon, wild horses in
Mongolia, dolphins in California, marine turtles in the
Pacific and whales in Antarctica.

Initially, CyberTracker's primary user base was wildlife biologists, conservationists and eco-disaster relief workers. A prototype was used in 2002 to record details of animals killed in an outbreak of Ebola. It has since evolved to become a general purpose data capture and visualization system and is now used worldwide for countless purposes such as the improvement of day to day living by indigenous communities, for scientific research, in protected areas, tracking science, community science, environmental education, forestry, farming, social surveys and wildlife crime prevention.

For me personally, CyberTracking (or just 'tracking') is

Practise your tracking skills!

Can you identify these four mammal tracks that you may find in the Duddon valley. Answers below.









simply a form of enjoyment, enabling me to observe the signs left behind by our wildlife and greatly increasing my understanding of its natural behaviour. I am gradually starting to recognise the tracks and signs of our native species. As you become more familiar, you can start to recognise partial and very lightly imprinted tracks, and start to understand what the animal was doing there, which becomes increasingly satisfying.

About the author: Nigel Sharma is a former Science teacher and Duke of Edinburgh Award Manager with a keen interest in nature, wildlife and bushcraft. He has recently taken on voluntary roles as a STEM Ambassador and Lake District Regional Coordinator for the Mountain Training Association.

CyberTracking Quiz Answers
1. Otter; 2. Fox; 3. Pine Marten; 4. Rabbit.

Would you be interested in a one-day introduction to CyberTracking in the Duddon Valley?

Nigel has kindly offered to arrange for an expert introduction from Woodcraft School. The day long course would cost about £70 per person and there would be a maximum group size of 10 people.

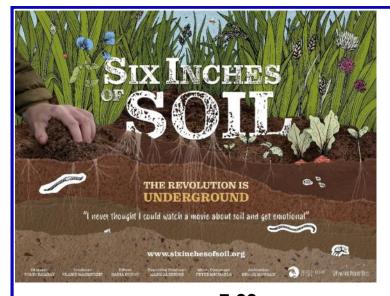
If you are interested in this opportunity, please email duddonriverassociation@gmail.com, and should there be sufficient demand, we hope to arrange a day in the summer for a CyberTracking event.

Find out more

For more information about CyberTracking, here are some useful links:

CyberTracking: https://cybertracker.org

Woodcraft School visit: www.woodcraftschool.co.uk/



Cumbria
Wildlife Trust

7.00pm

Friday 8th November

Thwaites Village Hall
LA18 5HJ

umbria Wildlife Trust's Duddon Local Support Group is back with a series of Friday evening events through the autumn and winter months.

November's event is a showing of the fascinating and topical film, **Six Inches Of Soil**. This is the inspiring tale of three young British farmers (Anna Jackson, Adrienne Gordon and Ben Thomas) standing up against the industrial food system and transforming the way they produce food, to heal the soil, benefit our health and provide for local communities.

Following the film (duration: 96 minutes) there will be a discussion about the issues raised. Members and non-members are all welcome. Admission is free, and donations are appreciated.

More information on the film can be found at: www.sixinchesofsoil.org/story-of-the-film



Duddon Catchment Project by Rick Browne

The summer months have seen some good progress on the Duddon Catchment Project, bringing together volunteers from the DRA, SCRT, Sustainable Duddon and the South Lakes Red Squirrel Group.

We've been busy on the rivers with riverfly surveys and electrofishing surveys completed, as well as a riverfly survey volunteer training course at Seathwaite, which was run by SCRT. As described in the Himalayan balsam bashing article (page 2), we have had bashing galore from the end of May to the beginning of September, our biggest season to date. Fish refuges, felled trees that create places for fish to shelter, have also been created at Logan Beck in the Lower Duddon.

We are monitoring the small animals found around the rivers by deploying six mink rafts with clay bases. When animals enter the raft, their footprints are captured in the clay, enabling us to identify them. Two of these rafts have resulted in the collection and identification of footprints from mink and these have now been set with traps.

A fencing project in the Stonestar area has been identified to prevent cattle poaching and encourage native species regeneration, and quotes are now being

Below left: A mink raft

Below right: clay pad with imprints





sought from contractors before work commences.

To encourage the red squirrel population we must first remove greys from the area. With this in mind we have undertaken a squirrel management training course. Following this, between 35 and 40 squirrel traps have been deployed along with feeders. Many of these have with remote monitoring units. Almost 200 grey squirrels have already been accounted for.

One litter pick has already been conducted in the Duddon valley and more of these will follow.

We will be monitoring the weather, and have just received two weather stations. One will be sited up on Corney Fell, the other near The Hill. Data collected will be linked to Broughton school, Thwaites Primary School and Millom Secondary school. Additionally, four trail cameras have arrived which will soon be deployed in the field.

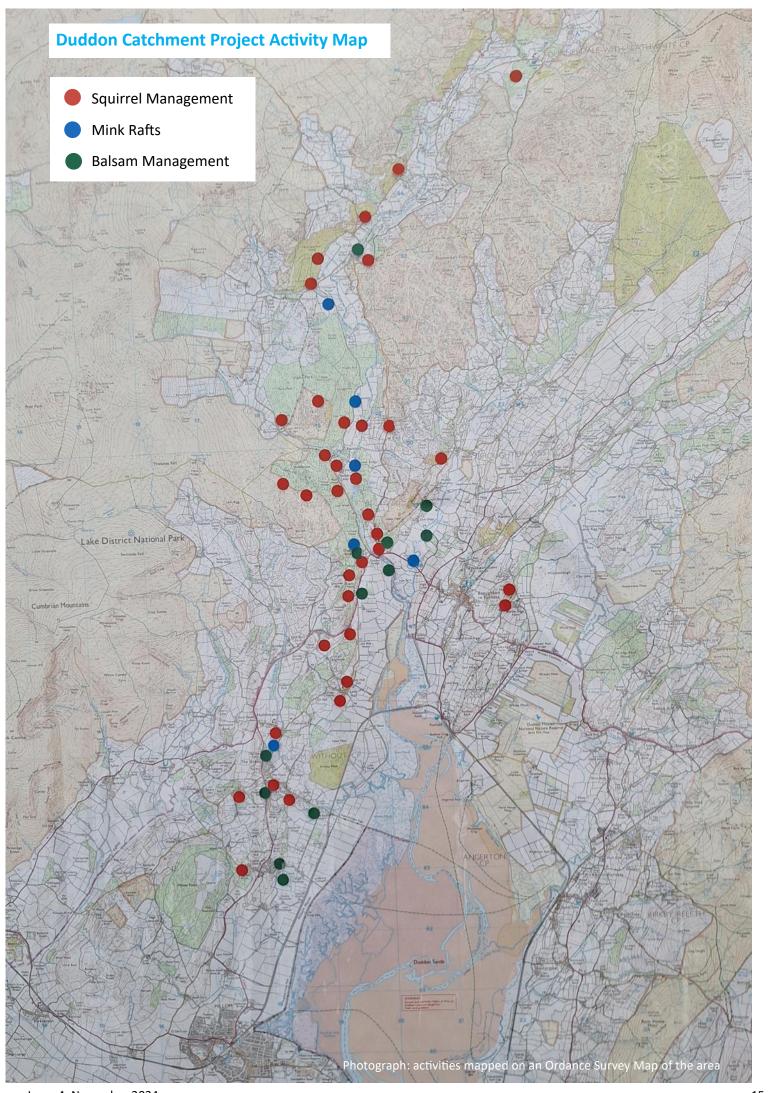


Above: Our display stand at Millom & Broughton Show, August '24

To engage the wider community and educate them about the aims of the project, we have attended Green Gala, North Lonsdale show and Millom & Broughton show, with display stands as well as a large map (opposite page) showing the areas we are active in.

We estimate that over two thousand hours have been invested in the project in all the various activities by our volunteers to date - what a remarkable achievement!

There are many opportunities to get involved (see the advert on page 16) so if there is something that you feel you can help with, then please get in touch with me!





Lakes, Meres & Waters Walk

Two of our youngest DRA members, **Toby & Pippa Brand**, spent this summer raising money for the
Duddon & Furness Mountain Rescue, by tracing the
steps of Joss Naylor, the inspirational fell runner and
Cumbrian sheep farmer. Here they share their
motivation for undertaking this challenge and recount
their experience...

few years ago we met Joss Naylor at a café where he was signing copies of his 'Lakes, Meres & Waters' book and we promised him that we would one day complete the route. After his sad death in June this year, we decided to attempt it over the summer holidays - walking though, not running and likely it would take us more than his 19 hours!

In the end it took us eight days of walking, a total of 105 miles, over 6,000 metres of climbing, and either paddling or swimming in the 27 lakes, meres & waters that the route encompassed. Toby also picked up a stone from each to discuss its geology at a later stage.

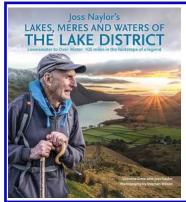
To stay motivated, we walked with friends, listened to music, stopped for endless snacks and had a couple of

Catherine Brand

nights in Youth Hostels. It was a great experience!

Our fun memories include stopping for a cream tea having only walked 2km on our second day and being the only residents in a seven berth camping barn. More challenging things about the walk included the rain (often incessant!), regular encounters with bulls, and the toughest, longest day which entailed 30km with 1,500m of climbing.

We were delighted to raise over £1,500 for the Duddon & Furness Mountain Rescue who are fundraising for a new permanent base. A big thank you to all those who supported us!



In 1983, Joss Naylor completed the Lakes, Meres and Waters run in 19 hours and 14 minutes, a record that still stands today. His book is part guidebook and part memoir, as he reflects on this, one of his favourite runs, as he retraces the route 37 years later.





Above: Rick and Pam on the DRA stand

Millom & Broughton Agricultural Show

e were thrilled to be present at this year's show on Saturday 31st August. Located in the 'Sustainability' tent with Cumbria Wildlife Trust, Sustainable Duddon, South Lakes Red Squirrel Group, Garden Organic and the Furness Bee Keepers Association, we were in great company!

The show gave us a wonderful opportunity to meet many people from the wider community and talk to them about the importance of river conservation and all the activities that we do from balsam bashing and electrofishing to building leaky dams.

Rick's pond dipping (from a handily located pond on the show field) resulted in a tray full of fascinating creatures that delighted young and old alike.



Biologist in residence, Josh, was quite the hit explaining what all the little critters were. It proved a very entertaining activity as people tried to spot the leaches, snails, dragonfly larvae, flat worms, water fleas, snails eggs, water boatmen and much more. Who would have thought that a small tray of pond water could be teeming with so much wildlife?!

We loved meeting everyone and encouraged as many people as possible to sign up for our newsletter to find out more about what we do and how they can help.



Above & below left: The pond dipping tray was a great success!

Thwaites Gala

The 8th June saw the DRA attend Thwaites Gala, once again joining organisations in the 'Green Matters' area. Always a fun day (and a very blowy one at that!), it was a great to talk about the work that we do and how people can get involved with helping to improve the river environment.



Issue 4: November 2024



Above: The stunning landscape and important habitat of the National Trust's Sandscale Haws National Nature Reserve at Roanhead which is now threatened by two proposed holiday lodge developments.

Roanhead update

By Steve Benn

Another newsletter, and another update on the application submitted to Westmorland and Furness Council for planning permission to build 450 ecolodges on land at Roanhead Farm, Hawthwaite Lane, Barrow-in-Furness.

On the 29th November 2023, this application was 'withdrawn'. Although the reason for the withdrawal is not shown on the Westmorland and Furness website, it is known that there was significant local opposition with well over 1,500 public representations made, the vast majority of these objecting to the proposal, including the one from the DRA.

In January this year, the developer behind the proposal submitted a second application, (essentially a re-submission in a revised form) this time reducing the number of Lodges from 450 to 233 (Planning Reference Number B06/2024/0024). This second Application for Outline Planning Permission included "habitat creation" and "ecological enhancements". Anyone wishing to read the second proposal can find it on the <u>Barrow Planning Hub</u> - search for 'Roanhead'.

In our June 2024 newsletter, we promised to keep you all advised of any update to the current situation. Currently, (as of 15th October 2024), the situation is that the Application is <u>still</u> 'PENDING'. Hopefully, this long delay might be a reflection of the difficulty that the Planners are having in Approving the development.

It would appear that Roanhead is a magnet for

developers. We have been advised that earlier this year, yet another planning application close to the original area had been submitted to Westmorland and Furness and we wanted to share the details with you. It refers to "Land at Hawthwaite Lane, Barrow-in-Furness, Cumbria" and the Planning Reference Number is: B12/2024/0213. The following description is taken directly from the Westmorland and Furness website:

"Change of use of land (currently used for agricultural grazing/woodland/redundant spoil heap purposes) to tourism use, comprising 23 holiday lodges (plus one warden's lodge), 10 glamping pods, 24 touring caravan/motorhome pitches and erection of 3 ancillary buildings, which comprise a facilities building, an amenity block and a booking-in office".

The agent acting for the applicant is Queensland Country Park Ltd, we are unsure if this is linked to the original Planning Application.

We will endeavour to keep you posted if we hear further news.

Find out more and take action!

Read the proposals online at <u>Barrow Planning Hub</u> - just search for 'Roanhead' - and email your objections including your name, full postal address, planning reference number and the date to:

Planning1@westmorlandandfurness.gov.uk

Keep abreast of the issues by joining the 'Save Roanhead from Developers' Facebook Group at https://www.facebook.com/groups/saveroanhead/



In memory of **Wendy Hardon**

(24.12.63 - 14.11.23)

e were very saddened to hear of the passing of Wendy Hardon around this time last year. Wendy was a new DRA member and the wife of Stephen Gardner, who some of you will know.

Many of us had met Wendy, along with Stephen, on our DRA guided walk at Tarn Beck in August '23, and had enjoyed our conversations with her as we walked around the top of the valley and had a drink back at the Newfield Inn. She was full of excitement about her recent move to the area and enthusiastic about getting involved with the DRA and meeting more people in the area - she was an absolute joy to talk to.

We were therefore very shocked and upset to hear of her passing, but also very touched by the fact that Stephen and Wendy's family decided to make a donation to the DRA in Wendy's memory.

Rick Browne, DRA Chair, says, "On behalf of the Duddon River Association, I'd like to thank Stephen

and his family for the very generous donation that was given to us in memory of Wendy. We are currently looking at various options of how we will use these funds to improve the river environment in a way that will suitably commemorate Wendy's life and her passions."

Stephen, Wendy's husband, has kindly shared these words about Wendy with us:

"Wendy's association with the Lakes dated back to her childhood in Southport when she and her parents and sister used to come here regularly on holiday.

After we got married and moved overseas to work in Singapore, our returns to the UK with our children would invariably involve a holiday to this area and in 2011 we bought a house in Woodland near Broughton. We planned to return to here for our retirement, and moved back in July 2023. Sadly these plans were not to be, following her untimely passing in November 2023.

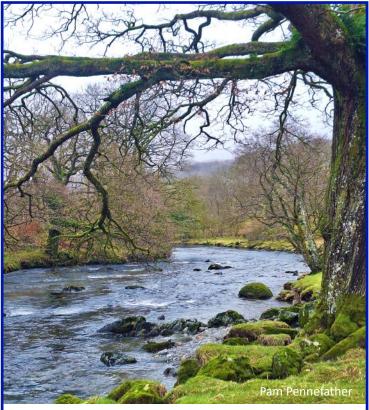
Wendy had retired in 2013 from her job as a Regional Finance Director but she was not the sort of person to stand still. Always interested in new things and continually inquisitive, she was keen to pursue a number of interests in the following years including Cordon Bleu cookery, painting, pottery and bread and cheese making.

With an eye to our eventual retirement here she also attended courses on bee keeping, rewilding with James Rebanks at his Lakeland farm and chain sawing!

We were very happy to join the DRA guided walk in August 2023 and gain an understanding of its work in our local area as well as meeting so many like minded people. She was really looking forward to getting involved.

I know Wendy would have been so happy that such a sad event has helped to generate funds to support the valuable work of the DRA."

Once we have chosen a suitable project we will share an update on how we are choosing to use this very kind donation and how we will commemorate Wendy's life and love of the area.



Please join us for our AGM

Il are welcome to attend our 2025 AGM! It's a great opportunity to hear about the work of the DRA, share ideas and observations, meet representatives from the agencies involved and catch up with our lovely members!

Time: **4.00pm**

Date: Tuesday, 11th March, 2025

Place: Old King's Head, Broughton in Furness

The meeting will start promptly at 4.00pm, so it's worth arriving just before that to grab yourself a drink at the bar should you wish to do so. We anticipate the meeting will last a couple of hours, but will include a short comfort break in the middle. We aim to conclude the meeting by 6.00pm at the latest.

As we've changed the timings for this meeting, instead of having a bite to eat beforehand, we will have supper and socialising afterwards (from 6.00pm). It would be helpful if you could let us know if you intend to dine so that we can arrange this with the Old King's Head.

Please email duddonriverassociation@gmail.com to confirm your attendance and dinner reservation at the AGM or to send apologies. Please also email to let us know if you have any items to add to the agenda.

We look forward to another productive meeting and a chance to meet up with everyone again.

DIARY DATES

NOVEMBER

Fri 8th 7pm CWT presents 'Six Inches

of Soil' (Thwaites Village Hall) See page 13 for more details.

MARCH

Tues 11th 4pm AGM

6pm AGM Social Supper

Old King's Head, Broughton

Restoring Hardknott Forest events

Wildlife events and volunteer days are run regularly at Hardknott Forest. Booking and more information can be found here.

SCRT events

Tree planting, leaky dam building, electrofishing and riverfly survey training days are all run by SCRT. Please see their website for details: www.scrt.co.uk/events

Windermere picnic

The rain stopped just long enough to allow those who had visited the FBA to enjoy a picnic in the scenic surroundings of Lake Windermere on August 10th. As Steve had promised, the sun even came out for a time! The high water level sadly meant that the reed bed work that we had planned wasn't able to go ahead, but we were briefed by Hannah on the importance of the work and hope that we will be able to volunteer at a later date.



Duddon River Association contact details

Chair: Rick Browne Secretary: Steve Benn

Social Media & Newsletter: Pam Pennefather

Email: duddonriverassociation@gmail.com

Instagram: duddonriverassociation

Facebook: duddonriverassoc

Facebook Group:

www.facebook.com/groups/duddonriverassociation



DRA is part of SCRT

South Cumbria Rivers Trust